TECHNOLOGY DEPT.

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MAR 14 1940

Air Conditioning & Refrigeration News

The Newspaper of the Industry

Trade Mark Registered U. S. Patent Office.
Member Audit Bureau of Circulations. Member Associated Business Papers.

Written to Be Read on Arrival

VOL. 29, NO. 11, SERIAL NO. 573
ESTABLISHED 1926

Copyright, 1940, by Business News Pub. Co.

DETROIT, MICHIGAN, MARCH 13, 1940

Entered as second-class matter Aug. 1, 1927

ISSUED EVERY WEDNESDAY
$4.00 PER YEAR

Edison Institute Session To Study Selling Problems

Speaking Assignments Are Set For Chicago Meeting Next Week

CHICAGO—Speakers on air conditioning and major appliance merchandising topics scheduled for discussion at Edison Electric Institute's seventh annual sales conference have been chosen, it was announced last week. The conference will be held in the Edgewater Beach hotel, March 19 to 22.

Regular sessions of the conference will open on March 20, but a special session of considerable interest is scheduled for the morning of March 19, when an open meeting will be held by Modern Kitchen Bureau to report on its progress and discuss details of its projected activities for 1940.

W. H. Sammis, vice president of Commonwealth & Southern and chairman of the bureau, will preside at this open meeting, which will feature a "symposium on progress" in which the MKB's 18 regional directors will participate. Directors will report on effective and profitable use of bureau materials by companies in various parts of the country.

How 1940 campaign themes were developed also will be explained, and a complete demonstration and presentation of campaign materials and their use in local drives will be made.

Opening session of the E.E.I. sales conference on March 20 will feature the following topics and speakers:

"Faster in 'Forty' is the Watchword," H. E. Dexter, vice president of Central Hudson Gas & Electric Corp., Poughkeepsie, N. Y.; "Dealer Sales—the Bottle-Neck of Distribution," Carl M. Randel, Pennsylvania Power & Light Co., Allentown, Pa.;

(Concluded on Page 24, Column 1)

A. D. Byler Elected Hotpoint President

CHICAGO—A. D. Byler, vice president and general manager of Edison General Electric Appliance Co. for the past 16 years, was elected president of the Hotpoint organization at a recent meeting of the firm's board of directors.

George A. Hughes, former president, was moved up to the post of board chairman to replace Willis H. Booth, who is no longer active in the management of the business. The new position of honorary chairman was created for Mr. Booth.

R. W. Turnbull, vice president in charge of sales, was elevated from second to first vice president. He will retain his position as director of sales. George W. Scott was re-elected secretary-treasurer by the board.

Stewart-Warner 1939 Profit $553,224

CHICAGO—Net profit for 1939 of $553,224, after deduction of $124,715 for federal and Canadian income taxes, has been reported for Stewart-Warner Corp. and subsidiaries.

This profit, equivalent to earnings of 45 cents per share on the company's stock, includes a dividend of 25 cents, totaling $310,462, paid Dec. 20 to stockholders of Dec. 8 record. This is in sharp contrast to the corresponding period of 1938, which ended in a net loss of $294,323.

Sales for 1939 totaled $25,825,829, as compared with 1938 sales of $22,561,450, an increase of 14%.

(Concluded on Page 4, Column 2)

Kelvinator Has New $114.75 'Special', But Second '6' Is Up $5

DETROIT — A new low-priced, 6¼-cu. ft. electric refrigerator, which will be added by Nash-Kelvinator Corp. to both its Kelvinator and Leonard lines of 1940 refrigerators and which will carry a suggested delivered - in - the - kitchen price of $114.75 anywhere east of the Rocky Mountains, has been announced by Frank R. Pierce, general sales manager.

At the same time it was announced that the price of the Kelvinator model SS-6 and Leonard model LSS-6, originally introduced at $119.95 as the lowest-priced refrigerators in the respective lines, had been increased to $124.95 to fit correctly into the company's "step-up" in models.

The company now has a step-up of $10 from the special advertising leader model to the Kelvinator SS-6 and Leonard LSS-6, and a step-up of $15 to the Kelvinator S-6 and Leonard LS-6.

Although the exterior appearance of the cabinet is quite different, the $114.75 model has many of the features also found in other Kelvinator and Leonard models, including door-enclosed freezer unit, 84-ice cube capacity, glass chill tray, and interior light.

* * *

Frank Pierce Announces—

Latest addition to the 1940 Kelvinator household electric refrigerator line is demonstrated above. It is to be delivered to any kitchen East of the Rockies for $114.75. Same refrigerator is also available at that price in the Leonard line. Its exterior is visibly different from rest of the line.

Syracuse Jobber Will Stage Two Day 'Carnival' For Refrigeration Trade In Northern New York

SYRACUSE, N. Y.—A refrigeration and air conditioning exhibition, the "Central Service Carnival," will be staged at Hotel Syracuse here March 21 and 22 by Central Service Supply Co., refrigeration supply jobber with stores in Syracuse and Scranton, Pa.

The exhibition will run afternoons and evenings and will feature a showing of refrigeration and air conditioning parts and supplies, as well as special entertainment and educational features. Companies displaying at the show include Automatic Products Co., American Injector Co., Bonney Forge & Tool Co., L. H. Gilmer Co., Minneapolis-Honeywell, Mercoid Corp., Mueller Brass Co., Friez Corp., Bush Mfg. Co., Tecumseh Products Co., Virginia Smelting Co., Ranco, Inc., and Fedders Mfg. Co.

The show is expected to draw some 500 persons from the territories in the states of New York and Pennsylvania served by the firm's two stores. Admission to the show will be free, and door prizes, souvenirs, and refreshments will be added features. Theodore I. Glou, head of the company, is in charge.

60% of Kansas City Salesmen Were 'Gone With the Wind' By Year's End

KANSAS CITY, Mo.—The extent of appliance dealer and salesman turnover in a large city has been determined in a study made by G. W. Weston, secretary-manager of the Electric Association of Kansas City, and president of the International Association of Electrical Leagues.

The study demonstrated that salesman turnover is a major problem for the appliance field today. According to the figures compiled by Mr. Weston, of the salesmen employed by dealers during the year, more than 60% were out of the appliance selling game by the end of the year. The study showed that at the end of the first eight months of 1939 (the best part of the sales year) the turnover was 46%.

However, Mr. Weston declares that "we are somewhat encouraged from the fact that most of the better dealer salesmen are sticking on the job and making good. It seems as though the electrical appliance business is such that there has to be a constant inflow and outgo of salesmen."

Dealer turnover, of course, was not nearly so great. In 1939 only 19% of the dealers who were in business sometime during the year

(Concluded on Page 4, Column 3)

Birdseye Ties In With 3 Manufacturers

NEW YORK CITY—"Mutual merchandising promotion" is now being fostered by Frosted Foods Sales Corp., national sales agency for Birdseye brand quick-frozen foods, in a tie-up with three manufacturers of household electric refrigerators—Crosley, Philco, and Stewart-Warner.

Officials of Frosted Foods Sales Corp., in explaining the "mutual promotion plan," state that "a partnership has developed between two naturally allied industries which bids fair to prove one of the greatest sales stimuli either has yet undertaken." Each of the three makes of refrigerators described has some models with a special compartment for quick-frozen foods.

Thus far, the concrete promotion activity has consisted of brochures, cook books, and news about quick-frozen foods in the sales manuals of the refrigerator manufacturers. In turn, frosted foods literature reviews the latest refrigerator models.

Refrigerator dealers are introduced to quick-frozen foods development at dealer meetings through the showing of such films as Birdseye's

(Concluded on Page 4, Column 5)

War Slows Down U.S. Refrigerator Exports

DETROIT—Because of the European war, the dollar value of United States refrigeration exports during 1939 declined 3% below the 1938 totals, according to preliminary figures compiled from U. S. Department of Commerce reports.

U. S. refrigeration exports to other countries in North America, to South America, and Asia gained during 1939 while exports to Europe, Australia, and Africa decreased. Shipments to the United States insular possessions increased.

Household refrigeration exports decreased from $10,767,512 in 1938 to $9,539,651 in 1939, a drop of $1,227,861 or 11.4%. Commercial refrigeration exports declined from $1,914,091 in 1938 to $1,790,789 in 1939, a decrease of $123,302 or 6.5%. However, exports of refrigerator parts jumped from $5,232,983 in 1938 to $6,053,171 in 1939, a gain of $820,188 or 15.7%.

For the five years 1935 through 1939, refrigeration exports to foreign lands totaled $90,431,148. Shipments

(Concluded on Page 17, Column 1)

January Exports Drop

WASHINGTON, D. C.—Foreign shipments of household electric refrigerators were valued at $455,902 in January, as compared with $501,325 in January of last year and $536,407 in December, the Department of Commerce reports. Refrigerator parts exports fell from $486,296 in December to 399,528 during January. Exports of parts in January, 1939 totaled $453,025.

N.Y. Bill Would Affect School Ventilation

ALBANY, N. Y.—A bill which would remove the present arbitrary requirements for ventilating and air conditioning school rooms and provide for "adequate" heating and ventilating facilities was passed by the Assembly here Feb. 21 and forwarded to the Senate for consideration. The measure was introduced by Assemblywoman Edith C. Cheney, Steuben Republican.

The measure is being opposed by

(Concluded on Page 4, Column 5)

239,000-Unit January Sets an All-Time Record

More Than Half of Nema Sales For Month Are In 6-Foot Class

DETROIT—All sales records of household electric refrigerators for the month of January were knocked sky-high when world sales by manufacturers to distributors and dealers in January of this year totaled 239,000 units, according to estimates made by AIR CONDITIONING & REFRIGERATION NEWS.

This total of 239,000 refrigerators represents a gain of 32% over the previous high for the month of 181,800 units established in 1937. Sales in January, 1939, were 157,500 units.

World sales by the 16 member companies of the Refrigeration Division of National Electrical Manufacturers Association (Nema) reached the total of 227,822 units. Of this total, less than 10,000 were sold in the export field.

Evidence that much of the January business was probably in the new low-priced "sixes" is to be seen in the fact that Nema sales in the 6-cu. ft. classification totaled 141,041 units, well over half the total number sold by Nema members.

Chicago Cooling Sales In February Double Those of 1939

CHICAGO—Twice the number of central-plant air conditioning systems were sold in Chicago last month as in February, 1939, Commonwealth Edison Co. announced last week.

Contracts were made for 20 installations, with an aggregate capacity of 1,618 hp. This compares with 10 plants totaling only 99 hp. reported in February, 1939.

Air conditioning systems sold last month will be located as follows:

General Offices	7
Restaurants	5
Theaters	2
Clothing Stores	2
Funeral Parlor	1
Shoe Store	1
Industrial Plant	1
Private Office	1
Total	**20**

In addition to the above central-plant installations, Chicago dealers sold 13 electric room coolers in February, as against three in February, 1939.

Ranco Adds To Plant; Plans New Products

COLUMBUS, Ohio — Additional manufacturing space will be provided in a new factory addition started early in March and to be completed by June 15 here by Ranco, Inc.

This addition harmonizes in design with the original unit which was completed about four years ago. It will be modern in every detail and will be provided with the same provisions for daylight illumination incorporated in the original plant.

E. C. Raney, vice president and general manager of Ranco, Inc., states that this expansion has been made necessary by the development of new and improved products.

Ranco products at present include controls for both commercial and household refrigeration and automobile winter air conditioning.

Additional products will be placed in production as soon as the new factory section is completed.

A Plan For Selling What Your Prospects Want In Refrigerators

Point Demonstrations Toward Showing 'Results' Obtained In New Refrigerator, Says Researcher

This is the third in a series of articles on problems concerned with selling the refrigerator replacement market, prepared by Paul W. Keating, a market analyst who has been studying the field for Porcelain Enamel Institute.

After outlining the opportunities for "selling up" to deluxe models on replacement prospects, Mr. Keating in this article advocates the use of "dynamic" selling—selling the plus conveniences that the higher-priced refrigerator models afford.

By Paul W. Keating

The two preceding articles in this series have defined the 1940 household refrigerator replacement market and described the tremendous **quality bargains** at the **top** of your line, which you can offer to the AA1 customers in that market.

Now let's consider how to sell what these customers want.

Well, what do they want? What do you want when you buy anything—a newspaper, for instance? So much paper of a certain grade? So much ink of such-and-such blackness? So many dots per square inch in the photographs? So many thousand words of copy?

No, that's not it. You could buy all these things and still not get what you're after when you stop at the news stand. You want news. You want the information collected by the newspaper staff about what's happening in your community and in the rest of the world. You want a good laugh from the comic strips and some ideas from the columnists. **It's "results" that you buy.**

When you buy a pair of suspenders or just old-fashioned "galluses," do you want so many inches of elastic cloth, so many buttonholes, a certain kind of stitching? No—you want something to hold your pants up! You want the neat appearance the suspenders will give you.

When customers buy a refrigerator they're not really buying so much steel, porcelain enamel, and chrome-plated wire. They want convenience. They want the safety and healthfulness of well-kept foods. They want the saving in food-buying and the prevention of waste that a refrigerator will give them. They want—and they buy—**not** the special features that make up that particular box, but the **advantages** those features will provide in their daily living.

Advantages—that's what people buy. And until you know that fact and use it in your selling, you'll be making mistakes, wasting selling time, losing sales! This is not a new idea—it's simply a sound one. And many salesmen think they are selling advantages when they actually are not doing so.

Consequently, it will be worthwhile for you to consider the distinction made here between advantages and features, even though it's perfectly apparent to you that you should sell the advantages refrigeration brings to your customers.

Making a Selling Point Really Sell

Suppose we have a refrigerator to sell called the Cold King. And this brand has a special exclusive feature. Only the Cold King has the patented porcelain enameled "Chill Chest," let us say.

The Cold King ads, using a "teaser" campaign, appear in newspapers and magazines throughout the country in December, saying simply, "What's the amazing new experience in finer living Cold King brings you in 1940?"

In January the ads say, "Why will the sensational new 'Chill Chest' make your dinners more delightful—and less expensive—in 1940? Ask your Cold King dealer."

In February Cold King's beautiful new box is pictured in all the ads, with thousands of inches of space describing the "Chill Chest"—"the latest contribution of Cold King laboratory scientists to the cause of finer living in the American home."

It's a great build-up for the "Chill Chest." Now let's see what Mrs. Consumer is buying when she comes in to see the new Cold King models. Is she buying the "Chill Chest," a porcelain enameled steel cabinet within the refrigerator, just because it's a "sensational new feature?"

The answer is no. Before she agrees to buy the Cold King she wants to know what the "Chill Chest" will do for her—what advantages it will give her.

The February ads told her about those advantages, and we'll tell her and show her again, even more thoroughly, on the sales floor.

The "Chill Chest" keeps meats moist and fresh for as long as five days by a special new process of humidified refrigeration. In this way she can always be sure of serving meat at the table as fresh, tender, and flavorable as it was when the butcher wrapped it up. She can save money by buying advertised meat specials. And she can save her own time and energy by making fewer trips to the meat market.

These are all advantages. They're benefits Mrs. Consumer enjoys in her own home and her own daily life. The "Chill Chest" is a feature, like a dozen other refinements of the Cold King box, and like those in other lines. Your customers aren't impressed one whit by these features unless and until they know what **advantages** the features provide.

Can Best Be Sold To Replacement Prospects

Basically these advantages haven't changed since the first automatic boxes were produced. But 1940 refrigerators provide them in much greater measure, in many more ways, than the boxes of ten or even five years ago.

So sell the advantages which the finest models in your line provide. Sell them to the replacement market customers. That's the selling job that will boost your income this year. It means the sale of the models that cost more, bring in more dollars of selling commission and net profit, and give much more to your replacement market customers. Everybody benefits when you do this selling job.

How will you do it? How should you go about selling the advantages of the models at the top of your line?

You've made a good start when you recognize that it's **advantages** your customers want. You won't be wasting selling time trying to sell them things they're not interested in.

Suggested Method of Building a Presentation

The next step is to build a complete presentation of all the advantages offered by the quality bargains in your line. No doubt you have, in your own sales organization, presentation material designed to fulfill this purpose. Every bit of that material is useful and should be utilized in your selling for your personal profit.

However, the presentation material you have was prepared with the idea that you would use it individually, building sales talks of your own, using your own words, fitting and shaping the ideas to your own selling personality.

Now, with the quality bargains in mind, as they were discussed in the preceding article in this series, you can work out very quickly a specific list of the advantages these bargains offer as compared with the old boxes to be replaced.

These advantages can be arranged under convenient heading, so that your presentation will be complete and in order, ready for use with every replacement market customer.

For instance, your new bargains in quality offer:

GREATER ECONOMY

1. Lower original cost—make a direct comparison with the cost of a comparable model in 1930.

2. Lower operating cost—this can be supported by actual test data, comparing present models with the boxes of 1930 or any other year.

3. Savings in waste prevention—more efficient refrigeration keeps foods longer and in better condition.

4. Savings in food cost—through larger volume buying, through using the refrigerator for making tasty frozen desserts, etc.

GREATER CONVENIENCE

1. Greater ice-making capacity—make a direct comparison on this point between the old box and the new one.

2. Much more efficient use of space—this permits the storage of far more food than in the old boxes, even when cubic-foot capacity is the same.

3. Departmental storage—a place for everything and everything in its place: Separate storage space for meat, for frozen foods, for bottles, for bulk foods, and for fruits and vegetables.

BETTER FOOD PRESERVATION

1. Foods are kept fresh and moist far more efficiently than in the old boxes, with new systems of graded cooling and humidity.

2. Great improvements in insulation and cabinet construction assured better food preservation.

STREAMLINED BEAUTY

1. Handsome cabinets with one-piece construction add that million-dollar look to any kitchen.

2. Improved finish on cabinets, inside and out, preserves the original appearance throughout the life of the box.

These are only a few of the advantages you can line up for today's quality bargains in your presentation, using comparisons with the boxes now owned by your replacement market customers. For each advantage, point out the features of your particular line that provide the advantage.

These are the benefits your customers want. The list can be increased and detailed very easily—and every advantage you add makes your selling of top-line models easier.

To illustrate, let's take something that can be discussed in detail here without getting into the differences between various refrigerator brands. The porcelain enamel finish will serve, since it is uniformly used as an interior finish and is a badge of distinction in several leading lines as an exterior finish for the finest models in the line.

Both lacquer and porcelain enamel finishes have been greatly improved during recent years. We'll take porcelain enamel as the example here simply because the writer is more familiar with it.

Dynamic Selling Applied

For this one **feature** you can line up the following **advantages**, every one of them a convincing selling point:

1. Today's porcelain enamel is more durable than ever, because of better raw materials and perfected methods of application to enameling iron. Many of your customers in the replacement market have porcelain enameled boxes that have the same sparkling finish as when they were purchased 10 or more years ago.

2. This gleaming finish is **easy to clean.** Soap and water will remove dirt quickly and easily. To demonstrate the resistance of the finish to marking and to show the ease of cleaning, you can smear the porcelain enameled surface with lipstick or iodine and remove it instantly with a damp cloth.

3. Porcelain enamel has an extremely high resistance to scratching. Again, you can demonstrate—by using the milled edge of a coin, such as a two-bit piece or a half dollar. Let the customer bear down on the coin, trying to scratch the surface, she won't be able to leave any mark that won't rub off easily.

4. This finish **retains its original whiteness** throughout the life of the box. There's no fading or yellowing, and the color of a porcelain enameled refrigerator and range will remain uniform.

5. Porcelain enamel **will not absorb any liquids or odors,** because this hard, glass-smooth finish is composed entirely of mineral materials and is non-porous. This is a real advantage, since all varieties of food are to be stored in the refrigerator during its life.

6. **Unaffected by temperature changes,** porcelain enamel can be exposed to any amount of heat or cold experienced in the average kitchen, without damage. A cigarette left burning on a porcelain enameled box cannot harm the glossy surface; this makes another good demonstration to sell your customer.

7. **Stainless porcelain enamel,** which usually forms the bottom lining of the refrigerator interior, **cannot be harmed by the action of acids,** such as are found in milk and fruit juices. The development of stainless porcelain enamel has advanced tremendously since your replacement market customers bought their present boxes.

Plan Summarized

This illustration shows what can be done with the quality bargains you have to sell. When you line up advantages in this fashion, covering all the selling points of a refrigerator, and then **sell them** to your customers, you don't have to worry about running out of sales ammunition. You have a complete advantage presentation which you can back up with convincing demonstration.

You answer questions and possible objections before they arise. You sell quality! That's something the industry needs today, if you and the others in the industry are going to make money.

It's not a difficult job, when you look at the contrast between today's quality bargains and the refrigerators of five to ten years ago. More tips on how to handle this selling job follow in the next article of this series.

Nema Reports Sales of 227,822 Units In January

The following 16 companies reported sales to the Refrigeration Division of the National Electrical Manufacturers Association (Nema) on household electric refrigerators for January, 1940:

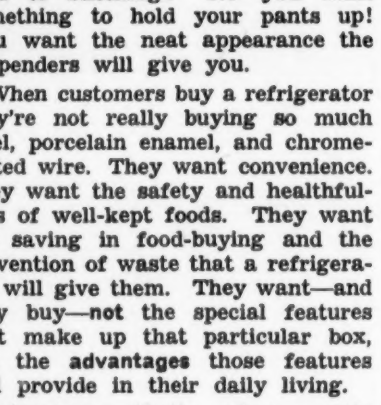
Apex Electrical Mfg. Co., Crosley Corp., Edison General Electric Appliance Co., Inc., Frigidaire Div. General Motors Corp., Gale Products Div. Outboard Marine & Mfg. Co., General Electric Co., Gibson Electric Refrigerator Co., Kelvinator Div. Nash-Kelvinator Corp., Landers, Frary & Clark, Leohard Div. Nash-Kelvinator Corp., Norge Div. Borg-Warner Corp., Philco Refrigerator Co., Stewart-Warner Corp., Sunbeam Electric Mfg. Co., Universal Cooler Corp., and Westinghouse Electric & Mfg. Co.

The sales of the reporting companies include units manufactured for the following concerns: Montgomery Ward & Co., Potter Refrigeration Corp., and Sears, Roebuck & Co.

	SALES FOR JANUARY, 1940			
	Domestic	Canadian	Other Foreign	Total World
Lacquer (Ext.) Cabinets Complete				
1. Chest	1	...	...	1
2. Less than 3 cu. ft.	...	2	...	2
3. 3 to 3.99 cu. ft.	3,879	16	499	4,394
4. 4 to 4.99 cu. ft.	11,423	970	1,760	14,153
5. 5 to 5.99 cu. ft.	27,519	588	1,383	29,490
6. 6 to 6.99 cu. ft.	137,672	1,600	1,769	141,041
7. 7 to 7.99 cu. ft.	3,807	13	31	3,851
8. 8 to 9.99 cu. ft.	22,382	31	234†	22,647
9. 10 to 12.99 cu. ft.	84	...	...	84
10. 13 cu. ft. and up	21	...	...	21
11. Total Lacquer	206,788	3,220	5,676	215,684
Porcelain (Ext.) Cabinets Complete				
12. Up to 4.99 cu. ft.	...	...	1	1
13. 5 to 5.99 cu. ft.	1,453	19	57	1,529
14. 6 to 6.99 cu. ft.	6,934	11	185	7,130
15. 7 to 7.99 cu. ft.	3	...	...	3
16. 8 to 9.99 cu. ft.	2,680	1	80	2,761
17. 10 to 12.99 cu. ft.	246	...	11	257
18. 13 cu. ft. and up	155	1	6	162
19. Total Porcelain	11,471	32	340	11,843
20. Total—Lines 11 and 19	218,259	3,252	6,016	227,527
21. Separate Systems, ¼ hp. or less	9†	...	251	242
22. Separate Household Evaporators	...	50	3	53
23. Total—Lines 20, 21, and 22	218,250	3,302	6,270	227,822
24. Condensing Units, ¼ hp. or less	...	...	...	...
25. Cabinets—No Systems	8†	...	2	10
Index Value* of Total Dollar Sales	302.0	1051.0	103.0	290.0

*Based on weighted sales for 1934, 1935, and 1936. †Includes sales and credits. *Note*: It is estimated that the figures on electric household refrigerators reported to Nema include more than 90% of the industry.

BIG CAPACITIES OR SMALL CAPACITIES With *FLASH TUBE COIL*



THERE IS A UNIT COOLER FOR EVERY TYPE OF INSTALLATION.

CAPACITIES FROM 900 TO 24,000 BTU PER HOUR.

EVERYTHING IN "LOWSIDE" EQUIPMENT

SEE YOUR JOBBER FOR 1940 CATALOG

PEERLESS OF AMERICA, INC.

MIDWEST FACTORY, GENERAL OFFICES — 515 W. 35TH STREET, CHICAGO

NEW YORK FACTORY · PACIFIC COAST FACTORY · SOUTHWEST FACTORY · EXPORT DIVISION

LONG ISLAND CITY · LOS ANGELES · DALLAS · TEXAS · DETROIT · MICH.

● Illustrating the 8-ft. Model Ideal Wet Beverage Cooler (Self-Contained).

An Amazing Sales and Profit Opportunity For You

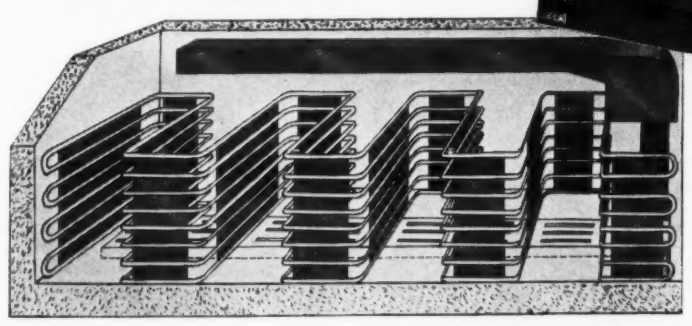
The New, Sensational IDEAL "SPEED COOLER"

(Wet or Dry)

The Fastest Selling, Fastest Cooling Beverage Coolers Ever Offered to the Trade

Wherever they have been presented, Ideal Speed Coolers immediately lead the field in sales. Ideal distributors quickly forge ahead to leadership in their territories — because of Ideal's many, quickly appreciated advantages.

Ideal Speed Coolers offer your customers these sensational features:



● Above: The Ideal Dry Beverage Cooler (Remote Type), 8 ft. Model with eight cooling compartments.

● Left: The revolutionary Ideal Thermal-Fin Cooling Coil (Pat. Pend.).

1. Faster Cooling

In test after test Ideal Speed Coolers have proven their ability for amazingly fast cooling. *The Ideal Dry Beverage Cooler is capable of cooling three times as fast as conventional coolers on the market today.*

2. Thermal-Fin Cooling Coils (Pat. Pending)

The Thermal-Fin Coil needs no explanation. A mere glance reveals even to the layman that every successful refrigeration principle has been utilized to assure maximum efficiency.

Besides having an enormous amount of prime surface, the added Thermal-Fin plates make possible the amazingly fast cooling of the Ideal by utilizing a combination of radiation, conduction and convection, the fastest method known in beverage cooling.

3. No Stopping — No Defrosting!

The user sets the thermostat to the desired temperature, and the Ideal unit does not stop operating until that temperature is reached. It's never necessary to stop the unit to defrost an Ideal Dry Cooler.

4. Separate Cooling Compartments

The unique design of the cooling coils in Ideal models separates the cooling space into compartments so that different brands are kept separate. There's no hunting around, no delay in picking out the brand of beverage desired.

5. Made By Specialists

Ideal Speed Coolers are manufactured of the highest quality materials by a company that for years has specialized in building only beverage coolers. Ideal knows and understands the problems of users as well as **dealers** in this important field.

Ideal's success is the result of the PERFORMANCE of Ideal Coolers.

Act Now!

Ideal offers you a chance to cash in on this tremendous sales and profit opportunity. Be the first in your territory to take command and lead in sales in the profitable, fast-growing, beverage cooler field. Your market is ready—Ideal gives you the answer to demand. Remember—it sells faster because it cools faster.

Rush the coupon for complete information on Ideal Speed Coolers. It's an opportunity you can't afford to pass up. Mail it today.

General Specifications

Ideal Dry Beverage Coolers (Remote Type)

Sizes	Cooling Compartments	Storage Capacities
5 feet	5	25 Cases
7 feet	7	35 Cases
8 feet	8	40 Cases

Ideal Wet Beverage Coolers (Self-Contained Type)

Sizes	Cooling Compartments	Storage Capacities
6 feet	6	15 Cases
7 feet	7	17½ Cases
8 feet	8	20 Cases

The first announcement of the new Ideal Speed Coolers brought inquiries from dealers throughout the country. Act quickly if you want this profitable line for your territory—send the coupon today.

Ideal Beer Cooler Company
2953 Easton Avenue, St. Louis, Missouri

Please send me at once, detailed information about the Ideal line.

Name.....

Firm.....

Address.....

City..... State.....

IDEAL BEER COOLER COMPANY 2953 Easton Avenue, St. Louis, Mo.

Crosley District Managers Get 'Lowdown' On What Their Job Is All About

CINCINNATI—A three-year merchandising program for Crosley appliances, said to be the most thorough and complete in the history of the company, was outlined to district managers of Crosley Corp. in a three-day meeting in the Netherland-Plaza hotel.

The meeting was presided over by Neil Bauer, manager of distributor sales. Thomas W. Berger, general sales manager and first speaker, told in detail of the new merchandising organization and program of the company.

Lewis M. Crosley, executive vice president, outlined company policies and introduced new members of the Crosley organization. R. C. Cosgrove, recently appointed vice president and general manager, spoke on the broad fundamentals of the new program, stating that it was not merely for a season or a year, but for three years.

THE 'PROFESSORS'

Others presenting various phases of the program were Duncan Morgan, in charge of market analysis; William T. Wallace, manager, radio division; R. J. O'Connor, manager, range-washer division; G. Earle Walker, in charge of rural electrification activities; William Shipley, manager of major account sales; C. E. Reinbold, manager, bottle cooler division; C. J. Felix, chief radio engineer; E. J. Ellig, office manager, who explained dealer financing plans; R. H. Money, chief refrigeration engineer; and J. W. Craig, assistant to Mr. Money.

In his address, Mr. Berger reviewed in detail the three-year merchandising program, and pointed out the responsibilities of the district managers in the program.

WHAT HE DOES

"A district manager's responsibilities fall into two classifications," he said. "One part is the development of the distributor—the development of his organization as a whole or the development of the manager of that organization. The second part is the development of the wholesale men working for that distributor."

Mr. Bauer then took up the advertising and sales promotion program, detailing new plans and promotions.

Mr. Morgan gave a talk on marketing analysis, in which he simplified this in practical terms. He called attention to the fact that 154 cities do 74% of the electrical appliance business, and pointed out that there is a tendency for business to go to secondary trading centers, and into rural trading centers.

RANGE PICTURE CHANGES

Mr. O'Connor, presenting more data on appliance marketing, said that in 1930, 180,000 electric ranges, or 85%, were sold by the utility companies, whereas in 1939, 340,000, or 60%, were sold by dealers.

"From 1930 to 1934," he pointed out, "there were 498,000 electric ranges sold. From 1935 to 1939 there were 1,430,000 sold. In the past five years, electric range sales have increased very close to 300%."

Mr. O'Connor also introduced the new line of Crosley washers and ironers.

Mr. Cosgrove unveiled the new Crosley bottle cooler, which will be announced shortly. The cooler was filled with ice cold soft drinks, which the district managers were invited to sample.

THINGS LOOK UP

Confidence in the outlook for 1940 was voiced by all the district managers. Typifying the general situation are the statements of Fielding Robinson, C. S. Tay, and C. V. Delgard, managers of Crosley Distributing Corp. branches in New York City, Chicago, and Dayton, Ohio, respectively.

"There is a marked stimulus in the metropolitan area, as a result of the Edison plan," said Mr. Robinson. "This will increase as the months roll by. With the lower prices on refrigerators and generally improved business conditions, refrigerator sales in metropolitan New York will be at an all-time peak."

Mr. Tay reported that the acceptance of the 1940 Crosley refrigerators in the Chicago territory is greater than in any previous year, and that the reduction in prices has stimulated consumer sales.

Mr. Delgard stated that this year's Crosley business in Dayton is well in advance of previous years, and that he expects 1940 to be an outstanding one in the electrical appliance business. He pointed out the greatly increased sales that are coming as a result of rural electrification.

Stewart-Warner Makes Financial Report

(Concluded from Page 1, Column 1)

Ratio of current assets to liabilities as of Dec. 31, 1939, stood at 4.47 to 1. Book value of stock (par $5) as of the same date was $11.88 per share.

A survey of the company's financial record for the past six years (1934 to 1939 inclusive) showed net earnings for the period totaling $8,019,543, of which 19% was paid out in income tax, 42% paid out in dividends, and 39% added to stockholders' equity.

Book value of stock increased approximately 28% over this period. Working capital increased about $4,200,000, of which $354,482 accrued during the last year. At the end of 1939 working capital totaled $7,934,251, indicating that approximately 54% of every dollar of book value was represented by net current assets.

Kansas City Dealers Seek To Hold Salesmen

Turnover Is Still Very Large Although Good Men Stay In Game

(Concluded from Page 1, Column 4)

were out of it by the end of the year. The two-year record for the years 1938-1939 was as follows:

60 dealers in business as of Jan. 1, 1938.
10 entered business during 1938.
70
19 quit business or appliances in 1938 (loss is 27% of the 70).
51 selling appliances Jan. 1, 1939.
9 started selling appliances in 1939.
3 started in business in 1939.
63
12 (7 quit business and 5 quit appliances in 1939 (loss is 19%).
51 selling appliances Jan. 24, 1940.

From 1935 to 1938 the number of dealers selling household electric refrigerators increased from 68 to 84, Mr. Weston's records show. In this period 22 new dealers started the business, and 18 firms in business started to handle refrigerators. In the same period 12 dealers went out of business, and 12 others dropped refrigerators but remained in business.

HOW THEY CAME AND LEFT

The study of salesman turnover for the first eight months of 1939 showed that of the 171 salesmen who were working for 29 dealers on Jan. 1, 92 were still in the dealers' employ at the end of August. Thus 46% of the men who had been working as salesmen on Jan. 1 were lost. During this same period the dealers had hired and kept 54 additional other salesmen. The study further shows that by the end of October the number of salesmen working for these dealers had climbed from 146 in August to 168. However, by Dec. 27 this figure had dropped to 150.

Table 1 shows the turnover of the salesmen working for the 29 dealers studied; also, the figures for the start of a new study which was started in October.

SETUP OF BONUS PLAN

Last year the members of the Electric Association turned their attention to this matter of salesman turnover, and offered a bonus plan to add to the salesman's income.

The bonus was offered on range sales. For each range sold the salesman was given a $10 bonus in addition to his commission; if the range was sold with an automatic control and a timer, the salesman received an extra $5.

This bonus came out of a fund created by payments made by distributors to the utility for the utility's services in delivering and wiring the range, providing a five-year service guarantee, and making available the services of a demonstrator to show the housewife how to use the range properly. Part of this extra charge over the list price is passed on to the customer, and part of it is billed to the distributor.

It is out of this fund that the bonus to salesmen was paid by the utility.

In connection with this bonus the Electric Association conducted a "sales promotion" campaign to salesmen, consisting chiefly of postcards showing a picture of a salesman who had made a good sum out of the bonus proposition, with this sum painted in big figures on the card. Cartoon attention-getters were used on other cards which carried sales inspirational messages.

What Happened To the Salesmen Who Were Working For Dealers on Jan. 1, 1939

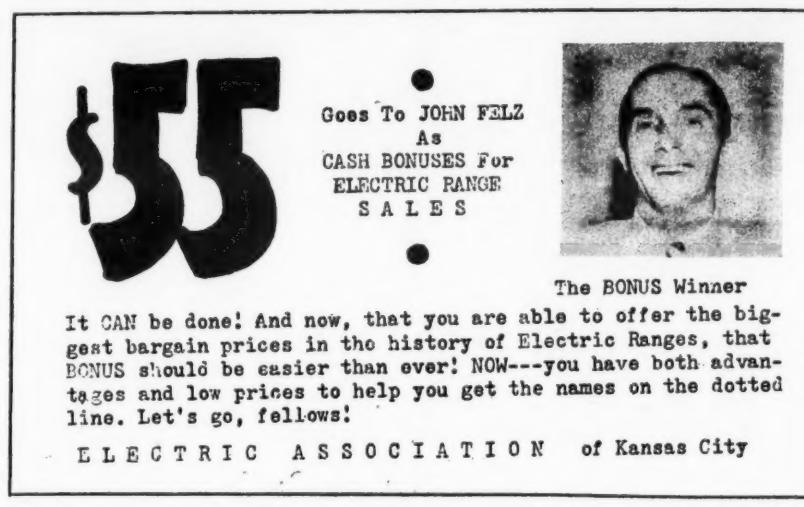
171 Salesmen working Jan. 1, 1939 for 29 dealers. (Average of six per dealer.)
92 Of these still working Aug. 22, 1939 for these 29 dealers.
79 Loss (46% in eight months).

92 Men still working on Aug. 22, 1939. (Average three.)
54 Hired Jan. 1, 1939 to Aug. 22, 1939.
146 Total working on Aug. 22, 1939 for the 29 dealers. (Average five.)

168 Men working Oct. 25, 1939 for the 29 dealers. (Average 5.8.)
131 Of these men still working Dec. 27, 1939.
37 Loss 22% in last two months of 1939.

131 Working Dec. 27, 1939 for the 29 dealers. (Average 4.5.)
19 Hired Oct. 25, 1939 to Dec. 27, 1939 (two months).
150 Total working Dec. 27, 1939 for 29 dealers. (Average 5.2.)

One Move In the Fight To Keep Salesmen


$55
Goes To JOHN FELZ
As
CASH BONUSES For
ELECTRIC RANGE
SALES
The BONUS Winner
It CAN be done! And now, that you are able to offer the biggest bargain prices in the history of Electric Ranges, that BONUS should be easier than ever! NOW---you have both advantages and low prices to help you get the names on the dotted line. Let's go, fellows!
ELECTRIC ASSOCIATION of Kansas City

Above is a reproduction of one of the postcards used by the dealer association to stimulate increased effort for greater earnings through a bonus plan.

New York, Pennsylvania & California Battle For Jan. Sales Lead

States and Territories	Household Low Sides
Alabama	1,982
Arizona	1,098
Arkansas	1,254
California	20,261
Colorado	1,036
Connecticut	3,670
Delaware	511
District of Columbia	1,122
Florida	2,339
Georgia	3,365
Idaho	836
Illinois	17,232
Indiana	5,975
Iowa	3,528
Kansas	1,788
Kentucky	2,739
Louisiana	2,327
Maine	830
Maryland	*1,705
Massachusetts	9,683
Michigan	10,057
Minnesota	6,769
Mississippi	1,049
Missouri	5,621
Montana	824
Nebraska	1,667
Nevada	313
New Hampshire	744
New Jersey	9,301
New Mexico	282
New York	21,447
North Carolina	4,227
North Dakota	465
Ohio	13,846
Oklahoma	1,778
Oregon	2,701
Pennsylvania	21,046
Rhode Island	1,299
South Carolina	1,577
South Dakota	472
Tennessee	3,034
Texas	8,559
Utah	1,077
Vermont	414
Virginia	2,865
Washington	5,481
West Virginia	2,238
Wisconsin	5,620
Wyoming	196
Total United States	**218,250**
Canada	3,302
Other Foreign (Incl. U. S. Possessions)	6,270
Total for World	**227,822**

*Includes sales and credits.

N. Y. Bill Would Affect Long-Debated Law on Ventilation of Schools

(Concluded from Page 1, Column 4)

the New York State Sheet Metal, Roofing, and Air Conditioning Contractors Association, Inc. Members in Buffalo are calling upon Erie County members of the legislature to defeat the bill.

The bill provides that plans for school building, before receiving approval of the state education commissioner, shall include facilities for heating and ventilating "adequate to maintain healthful conditions" in class rooms and study halls. The present mathematical requirements in the law for ventilating are striken out.

Opponents hold the proposal would clothe the state commissioner of education with arbitrary power to approve plans which might "meet his fancy." Wholesale changes in existing policy would be permitted, it is held.

The proposed amendment takes away the present requirements of the state law which provide that at least 15 feet of floor space and 200 cubic feet of air space should be provided for each pupil, with facilities for exhausting foul air.

Birdseye Ties In With 3 Refrigerator Firms On Joint Promotion

(Concluded from Page 1, Column 3)

"Imprisoned Freshness." As an added incentive to the purchase of refrigerators, some dealers are offering a couple of day's supply of quick-frozen foods. Food stores featuring quick-frozen food items sometimes maintain displays of household refrigerators equipped to store good-sized amounts of such foods.

Hightower Represents G-E Commercial In South

BIRMINGHAM, Ala.—George B. Hightower, formerly of Bloomfield, N. J., has been named district manager for General Electric automatic heating, air conditioning, and commercial refrigeration products in the deep south area, including Arkansas, Louisiana, Mississippi, western Tennessee, and Alabama.

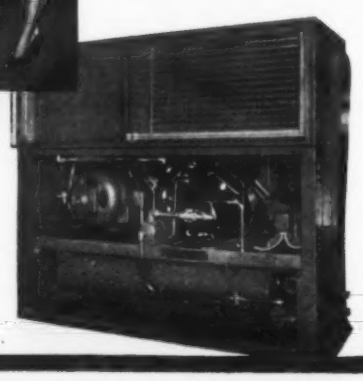
NOW, CURTIS Advertises in TIME
THE WEEKLY NEWSMAGAZINE

● To help you sell more Curtis Packaged Air Conditioners, Curtis advertising now appears in Time, The Weekly Newsmagazine. Every advertisement will tell 700,000 Time readers of the many advantages of the complete Curtis line of packaged air conditioners.

Curtis offers packaged air conditioners of from 3 to 15 tons capacity, designed to meet the requirements of all classes of retail establishments, offices, stores, etc. You can increase your profits by selling Curtis air conditioning to this vast, growing market.

Curtis Packaged Air Conditioners cool, dehumidify, filter and circulate the air and are adaptable for heating. They are quickly installed, readily financed and are easily transported to new locations if desired.

Meet the demand with Curtis Packaged Units. Display them on your floor to the thousands of your prospects who will see Curtis advertising in *Time*. Write today for information on the complete Curtis line.



3 and 5 ton Packaged Type Air Conditioner.

7½-10-15 ton Remote or Central Type Air Conditioner.

CURTIS REFRIGERATING MACHINE CO.
Division of Curtis Manufacturing Co.
1912 Kienlen Ave. St. Louis
CURTIS REFRIGERATION AIR CONDITIONING and COMMERCIAL

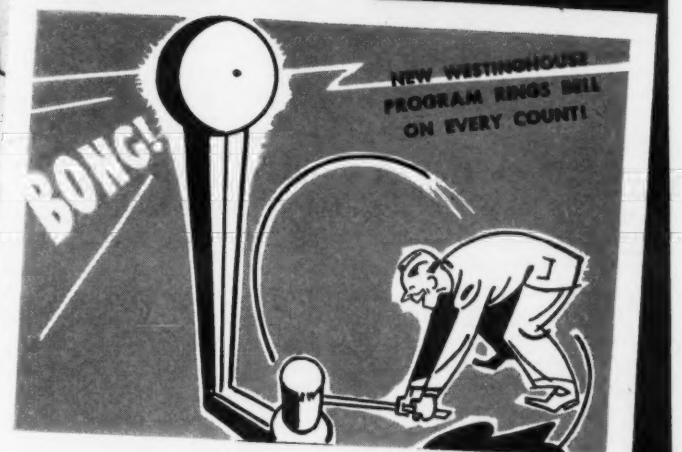
WESTINGHOUSE REFRIGERATOR RETAILERS

Don't miss the big Westinghouse "Ring-Time" Meetings ...there'll be one near you soon!

Yes! Spring time is "Ring-Time" this year for Westinghouse Refrigerator Retailers! The new "Faster for '40" Pacemaker Refrigerator Line is sounding a new note in style, features, and all-around *salability*. Prices are down to strictly competitive levels—with something *extra* for you to offer in every model. "Selling up" is made easier than ever—profit opportunities amazingly increased. You'll agree that Westinghouse "rings the bell" as never before when you get this sensational product story at the coming "Ring-Time" Meetings.

But you'll find *product* only *half* the story at these meetings! To help you ring up a bigger share of 1940's $50,000,000 range and refrigerator market, Westinghouse will ring up the curtain on the most complete seasonal advertising and promotion program in Westinghouse history! Magazines! Newspapers! Radio! Demonstrations, displays, dynamic local promotions! A wealth of selling help from contact to closing — including a big $23,000 Prize Contest, a sure-fire, traffic builder for Westinghouse dealers. Learn all about it at your local "Ring-Time" Meeting.

You're invited! *Make no commitments* of any kind until *after* this meeting. Plan for a ringside seat at "Ring-Time," and see for yourself how much *more* Westinghouse offers for 1940!



Important improvements, and new low prices will be dramatized in smashing full color magazine advertising, key city newspapers, the 97-station "Musical Americana" weekly radio program and the new "Ring-Time" promotion.

Complete sales training and selling help program makes it easier than ever to demonstrate greater Westinghouse value. Every type of retail outlet will benefit from this new and broader assistance, covering every step of the sale.

Westinghouse price reductions protect retail profits, not only through greater volume, but in actual dollars-and cents per sale! What you will learn at your local "Ring-Time" meeting will be reflected in your balance sheet and bank account.

TUNE IN MUSICAL "AMERICANA"
Thursdays, 8 P.M. Eastern Time, 7 P.M. Central Time, N.B.C. Blue Network. (8:30 P.S.T.; 9:30 M.S.T.)

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, DEPT. 99, MANSFIELD, OHIO

"RING-TIME" MEETINGS SCHEDULED IN THESE CITIES:

Akron, O.
Albany, N. Y.
Atlanta, Ga.
Birmingham, Ala.
Boise, Idaho
Boston, Mass.
Buffalo, N. Y.
Charlotte, N. C.
Chicago, Ill.
Cincinnati, O.
Cleveland, O.
Columbus, O.
Dallas, Tex.
Dayton, O.
Denver, Colo.
Des Moines, Ia.
Detroit, Mich.
Houston, Tex.
Huntington, W. Va.
Indianapolis, Ind.
Kansas City, Mo.
Knoxville, Tenn.
Little Rock, Ark.
Los Angeles, Calif.
Louisville, Ky.
Memphis, Tenn.
Milwaukee, Wis.
Nashville, Tenn.
Newark, N. J.
New Orleans, La.
New York, N. Y.
Oklahoma City, Okla.
Omaha, Nebr.
Orlando, Fla.
Philadelphia, Pa.
Phoenix, Ariz.
Pittsburgh, Pa.
Portland, Ore.
Raleigh, N. C.
Richmond, Va.
Rochester, N. Y.
Salt Lake City, Utah
San Antonio, Tex.
San Diego, Calif.
San Francisco, Calif.
Scranton, Pa.
Seattle, Wash.
Spokane, Wash.
Springfield, Mass.
St. Louis, Mo.
St. Paul, Minn.
Syracuse, N. Y.
Toledo, O.
Washington, D. C.
Wichita, Kan.

"RING-TIME" DATES BETWEEN MARCH 8 and APRIL 12
ASK YOUR WESTINGHOUSE DISTRIBUTOR FOR DATE OF YOUR MEETING

Westinghouse Refrigerator

THE PACEMAKER . . . NOW *FASTER FOR '40!*

'Salon' Helps Sales Of Used Units

ST. LOUIS — Maintenance of a separate "salon" for used refrigerators has considerably stepped up sales of this equipment for Brandt Electric Co. here.

The "used refrigerator salon" displays up to 20 boxes, each shown against a colorful background, and raised off the floor on individual 10-inch platforms. All the display and showmanship ideas which feature the new-box salesrooms are duplicated here—and the result has been quicker turnover, better sales, and a better price per unit sold.

Two major points in appliance merchandising are covered by the separate salon, Arthur Brandt, Jr., head of the department, points out. First, there is no "cheap" atmosphere of used boxes shown in indiscriminate style around the floor, with nothing but price as a sales handle. Second, the presence of used boxes in the same room with brand new refrigerators, which formerly exercised a drag on sales because customers could easily see the difference in price, is completely eliminated.

When the customer states that he wishes to look over the used stock, he can be immediately escorted to the used refrigerator showroom without embarrassment to him.

One angle to this way of used-refrigerator merchandising which might be considered a drawback is the fact that trading up to better or new boxes is almost impossible—yet the better unit price possible by giving used merchandise all the benefits of new-box display more than makes up for this difference. It is simple to switch a prospect from one salon to another, Mr. Brandt points out, once it becomes clear that whichever is visited first does not contain the desired type of refrigerator.

Used refrigerators are completely reconditioned at Brandt's at an average cost of $4 each—which includes complete mechanical overhaul, new trays and glass, and replacement of all worn hardware, as well as repairing of enamel chips and mars, and revarnishing of woodwork where needed.

Promotion Shows How Dual-Temp Unit Can Keep Frozen Foods

ST. LOUIS—A new type of refrigerator promotion, designed to show the adaptability of the Stewart-Warner Dual-Temp unit to frozen foods preservation, has been developed by Brown Supply Co., distributor.

A tie-in has been effected in connection with a model kitchen display operated by Honor Brand frozen foods at the Hampton Village Market, a new cooperative suburban show market which is attracting as many as 30,000 visitors on "Open House" Sunday shows when nothing is offered for sale.

The "freezing locker" feature of the Dual-Temp unit is exploited in the display, and all leads developed are divided among local dealers.

Turning Low Quotas Into High Sales

Monthly Bonus Plan That Works, Contests When They're Needed, Help Little Rock Dealer To 500 Sales Yearly

LITTLE ROCK, Ark.—A salesman who feels that he is working for himself as well as for his company has the strongest incentive to ambition. That is the simple principle behind the program that enabled Pfeifer Brothers department store to sell 500 electric refrigerators in a year. This department store gives more than the usual emphasis to its home appliance department—because it pays.

"We keep our sales force constantly pepped up with contests and a simple progressive bonus plan that really works," said W. J. Glasscock, manager of the refrigerator and radio department. (The washer-and-ironer department is under another sales manager.) "Since we commenced the plan, volume has doubled and we have a happy, live-wire sales force.

SHOOTING TOO HIGH

"I believe that some sales managers make the mistake of giving their men a quota that is unreasonably large. When a man doesn't make his quota, he naturally becomes discouraged. We give our boys a quota that they can and should make. If they don't make it they are automatically disciplined by being deprived of prize or bonus."

Salesmen working for this dealer do not have to wait until Christmas to get a bonus, for the Pfeifer Brothers bonus plan yields an income every month for the successful salesmen. Here's how it works. The men are given a reasonable quota the first month. If the salesman makes his quota he gets a 1% bonus on net sales. The next month, with the same quota, he gets a 1½% bonus; the third month he gets 2%. If he falls below his quota after the first month, he has to start all over. But after the third month he still gets his extra 2% if he continues to make his quota each month until he fails, when the cycle must start again.

The bonus plan is a continuous program. But several times during the year Mr. Glasscock finds that his sales force needs an extra incentive in the form of a contest. Prizes are usually clothing, sometimes a vacation trip for the top man.

CLOTHING FOR SALES

A typical spring contest required each man to sell 15 refrigerators to qualify for a new outfit of clothes. Those who did not quite make the quota were awarded parts of the complete outfit—hats, shoes, underwear, etc. During the contest, enthusiasm was kept high with a contest board. As each man made another $100 toward his quota, a picture of the shoes, hat, or tie he had won would be posted under his name, until he had earned the complete outfit, from underwear to suit.

At the end of the 10-day contest, three men had won complete outfits. The plan was so successful that it was repeated at vacation time. And when the men returned from their vacation, another contest was launched.

TIMING IMPORTANT

"There is a psychological time to hold a contest," Mr. Glasscock says. "One of the best is just after vacation, when the men are broke and out of their stride. A contest snaps them into line immediately.

"I've never seen a contest fail to stimulate business if it is handled right. It is important to lead up to the opening day. In our daily sales meetings, we talk about the contest for two weeks before it actually begins. That always stimulates cold canvassing.

"In our daily meetings the boys are encouraged to talk about their experiences in dealing with people. Swapping experiences builds friendship among the salesmen, important in an organization like this, which does not restrict the men's territory.

"These daily meetings make the men thoroughly acquainted with the merchandise they sell. A Pfeifer home appliance salesman is expected to be able to answer almost any conceivable question asked him concerning refrigerators, ranges, radios, and laundry equipment.

"In my department, I continually play up the cut-away refrigerator that I use for floor demonstration, requiring each man to acquaint himself so thoroughly with the mechanism and other details that when he has a customer who is seemingly hesitating between our refrigerator and that of a competitor, he can swing the cut-away around and make his demonstration so convincing that even a woman will be interested.

"For while women are usually more interested in beauty and convenience than hidden mechanical perfection, the latter is often the point that swings a sale."

HANDLING TRADE-INS

Mr. Glasscock uses the bonus plan successfully in handling trade-ins, which are carried in a separate department, in another building across the alley. This building happens to be a hotel. The used refrigerator department is in an attractive display room, and has its own display window. When the salesmen have a low-income prospect who cannot buy a new refrigerator, they take him over to the annex. Extra commission is given when a used refrigerator is sold.

"We don't encourage the salesmen to play up the annex too strongly," said Mr. Glasscock, "yet our bonus plan gives us a nice turnover in a department that otherwise might be very unprofitable."

Pfeifer Brothers' own service department reconditions used refrigerators for resale. Advertising for this department is done mostly through the classified columns.

It Pays To Demonstrate

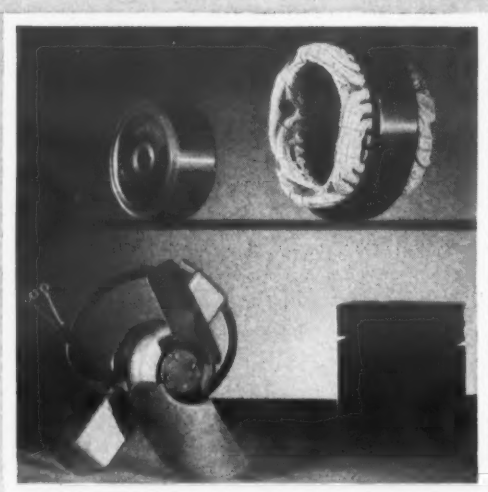
This cut-away demonstrator, says Mr. Glasscock, is especially valuable in closing sales with a strong "competitive" complexion.

Leading Refrigerator Manufacturers
BUILD BETTER VALUES WITH THE
DELCO HERMETIC UNIT

Designed to do the job—better

On leading makes of refrigerators throughout the country, Delco Hermetic Units are providing efficient, economical power that helps assure satisfied customers. Delco Hermetic Units are supplied in sizes from 1/15- to ¾-h.p.—split phase, condenser start, condenser start and run.

The Delco Hermetic Unit eliminates seal friction and belt friction, and can be housed in a small, compact unit. Parts are washed, to remove all foreign matter that might affect the operation of the unit. Protection against splash or coolant vapor is provided by specially-processed paper or cotton insulation, assuring dependable power under adverse conditions. Operation by hot wire relay or magnetic relay affords ample overload protection.



An important factor in assuring the long life of Delco Hermetic Units is the construction of the rotors. These are of the copper-welded, indestructible type, eliminating the use of solder that might introduce metal particles into the sealed unit. Before leaving the factory, Delco Hermetic Units are given dielectric and run-in tests to assure satisfactory operation in the appliances they power.

Power Your Appliances with Delco "Designed for the Job" Motors

Delco Products motors for refrigerators, washers, ironers, oil burners, stokers and air conditioners are designed to meet the requirements of the particular application . . . to stand up under the operating conditions of the appliance for which they were built. Leading appliance manufacturers use Delco motors for their products.

DELCO MOTORS
DIVISION OF GENERAL DELCO PRODUCTS DAYTON, OHIO MOTORS CORPORATION

A FINANCE PLAN THAT

PROTECTS YOUR DEALERS' PROFITS AND PROMOTES YOUR DEALERS' SALES

1. IT'S THE NEW DEALER RESERVE PLAN
2. IT DOES WHAT MOST PLANS FAIL TO DO—PROTECTS DEALERS' PROFITS
3. IT OFFERS A NEW LOWER RATE
4. IT PROVIDES ONE RATE SCHEDULE FOR ALL DEALERS—COVERING ALL HOME APPLIANCES
5. IT CUTS DOWN DEALER MORTALITY
6. IT'S A PLAN YOU SHOULD BACK TO THE LIMIT WITH YOUR DEALERS BECAUSE—

WHEN YOU HELP YOUR DEALERS PROTECT THEIR PROFITS YOU PROMOTE SELLING EFFICIENCY.

IT is one thing for a dealer to make a profit on sales . . . it is quite another thing to hold on to that profit.

A big part of appliance sales are time payment sales.

A correspondingly big part of the dealer's profit should come from these sales.

But will it?

Not if the plan is all shell and no meat. *Not* if the plan looks good but works badly—for the dealer. *Not* if the plan doesn't offer liberal terms and low charges to attract the buyer. *Not* if it only protects the dealer *after* the first six months, the period when *least* repossessions occur. *Not* if it glosses over his all-important re-selling costs and leaves him to pay these expenses out of his merchandise profits.

Let's get down to brass tacks on this subject of sound financing—sound for the *dealer* as well as for the customer.

What is there about this new Commercial Credit Plan that makes it a stand-out—the safest plan—the one really practical plan for most dealers? *Because it is a profit protection plan.*

Jot this down for comparison with other plans.

Commercial Credit has again cut appliance finance charges. One simplified rate chart covers all appliances.

The Commercial Credit Dealer Reserve Plan sets aside a cash reserve for the dealer which runs as high as $5.40 a deal.

What is this for? We'll tell you!

Finance company experience proves that a certain number of appliances sold on time are afterwards repossessed.

After paying repossessing, reconditioning and re-selling expenses, the dealer frequently realizes an amount that is less than the original selling price, thereby establishing a loss.

And why should a dealer lose this substantial amount which robs him of a large part of his original profit on the merchandise? He shouldn't have to. Under this new plan, the customer charge, low as it is, includes a covering margin to protect the dealer.

As optional arrangements, Commercial Credit financing service offers at the same low rates the Limited Liability Plan—popular with many dealers—as well as the Purchaser Discount Plan—created to reward the prompt paying purchaser with a discount on each instalment paid within three days of coupon date.

* * * * *

Regardless of which plan the dealer selects, Commercial Credit never loses sight of one of its main responsibilities. It provides a sound, adequate, liberal credit and collection service.

The Commercial Credit Plan is a *merchandising* plan in every respect. Terms are liberal with payments small enough to minimize the price of the appliance. Special plans are offered for short-term financing; for quarterly payments by farmers; for combination and "add on" sales.

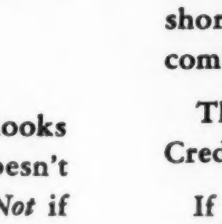
The liberal low-cost FHA Plan is offered through Commercial Credit service for the financing of eligible equipment.

If you want to maintain maximum distribution through dealer outlets—you know that your dealers must make money.

And to make money, they should use the one time payment plan that will plug the operating leaks and assure them of the full profit on every deal—the COMMERCIAL CREDIT PLAN.

* * * * *

Commercial Credit Companies offer a Floor Display Plan on which dealers may finance from a single unit to their entire display of new merchandise. The terms are liberal, and the cost is so small no dealer should neglect to carry a complete stock. Dealers may also arrange with the Commercial Credit office serving their territory to demonstrate this merchandise in the prospects' home.



COMMERCIAL CREDIT COMPANIES

Serving Manufacturers, Distributors and Dealers throughout the United States and Canada

2 Models In Kelvinator Ice Cream Cabinet Line Built For Frosted Foods Storage

DETROIT—A new 1940 line of ice cream cabinets, including two models equipped especially for merchandising frosted foods, has been announced by Kelvinator. The line consists of four single-row and four double-row models. Single-row cabinets include a 1-hole midget model and 2, 3, and 4-hole models; double-row cabinets include 4, 6, 8, and 12-hole models. Capacities range from 2½ to 55 gallons bulk storage, or up to 124 packaged items.

Featured in the line are 8 and 12-hole models for use as frosted food cabinets. These are equipped with dispensing baskets and illuminated display boards which make them easily convertible into frosted food merchandising units. On each side of the display boards are five large, colored, frosted food illustrations printed on translucent material and lighted from the inside. Below the illustrations are metal channels that provide space for item slides listing the products.

SLIDE-OUT COMPRESSORS

All ice cream cabinets are equipped with an improved condensing unit with a high-capacity repulsion-induction motor and built-in automatic reset overload protection. These condensing units are built on a slide-out base, which permits inspection or adjustment without closing a valve, disconnecting a line, or shutting off the current. High side float is mounted on the unit for easy accessibility. Liquid and suction lines are soldered together as a heat exchanger to increase capacity.

Cabinets are of welded steel, rustproofed and finished in two coats of baked enamel. A channel steel base increases the rigidity of construction, and affords toe room and permits ventilation under the cabinet. Tops of the cabinets are of stainless steel with a brush finish.

Lift lids, of black moulded rubber with stainless steel facing on top and bottom, are insulated with hydrolene-sealed corkboard 2 inches thick and have flexible rubber edges to provide a tight seal. A rubber chamber guard seats lids on all four edges, eliminating metal contact between the sleeves and the top.

'FLIP-FLOP' LIDS

Lids are available in the standard or "flip-flop" type. Flip-flop lids, optional on all models except the midget 1-hole and the 3-hole, have durable rubber hinges that eliminate the sweating caused by ordinary metal hinges.

A large shallow sleeve, standard on all models except the two smallest, is especially adaptable for storing such items as packaged ice cream and frozen novelties. It has refrigerant tubing on all six sides and in the center partition.

Sleeves are made of a special deep drawing, heavily zinc-coated sheet steel which has had its surface chemically treated to form a paint adherent surface. Lock seams are soldered to make them water tight and the inside of the sleeves is finished with an aluminum paint selected for its moisture resistance.

Refrigerant tubing is non-corrosive copper and is applied to four sides of the deep sleeves and six sides of the shallow sleeve for uniform storage temperature.

All cabinets are permanently sealed by the use of eight specially selected sealing compounds to provide protection against the deteriorating effects of moisture.

INSIDE SEAMS SEALED

All inside seams in the cabinet exterior are sealed by a pressure-gun application of an elastic, semi-plastic compound, while an asphaltic sealing material is used between the corkboard insulation in the bottom of the cabinet and the sleeve assembly.

Wood sub-top is moisture-proofed with a special sealing compound, and a moisture-resistant, asphaltic sealing material is used between the stainless steel top and the wood sub-top.

Stogie Mitchell Sets Up Dealership In Dallas

FORT WORTH, Tex.—Stogie Mitchell Co., branch of Pierce-Langston Co. of Dallas, has been established here as a commercial refrigeration dealer, handling the Weber line of equipment. Stogie Mitchell, Gainsville, Tex., and Ben Smith, Detroit, will head the branch. Offices and display rooms are at 1204 Commerce St., Fort Worth.

'Second Sale' Specialist

A. L. Munson of the Detroit office of Westerlin & Campbell checks the 5-hp. York "Freon" compressor he sold to Hotel Webster Hall as part of a system supplanting an outmoded, 20-year-old machine of 25-hp. capacity.

* * *

Pleasure and Profit—Detroit Salesman Finds Both In Replacement Business

By Henry Knowlton

DETROIT—Replacement of a 25-hp. CO_2 refrigerating machine, which had operated for 20 odd years in Hotel Webster Hall with a 5-hp. and a 2-hp. York "Freon" compressor, is the kind of a deal that A. L. Munson of Westerlin & Campbell's Detroit office likes to get.

The reason is that the sale not only represents a substantial dollar volume for a commercial installation, but it saves the owner money, and at the same time allows Mr. Munson to apply his knowledge of refrigeration, gained both as a salesman and as an engineer on refrigeration plants.

The 5-hp. compressor installed in Webster Hall serves a water cooler requiring approximately 2 tons of its capacity and the balance is used to operate an ice-maker having a capacity of 2,400 lbs. per day. This arrangement has been found to be very satisfactory, because the "peak" on the water cooler comes three times a day—at mealtimes, and the "peak" on the ice-making load comes in the middle of the morning and the middle of the afternoon, when ice is taken out of the tank.

DOWN THE CHUTE

To facilitate handling of large quantities of ice, an overhead chain fall has been installed. The large cakes of ice can be moved by this crane to the top of a special "chute" which sends them out on to the floor in a place where they can easily be handled. The large cakes are then crushed or made into cubes for use throughout the hotel.

Temperature control in the large water cooler is by means of a back pressure regulating valve, which prevents freezing. The liquid line is controlled by a solenoid valve, which is operated by a thermostat located in the water. When the temperature reaches 35° F. the solenoid closes.

For cooling the water rapidly "Freon" is introduced into 1¼-inch pipe in the tank through a thermal expansion valve. The pipe coil is approximately 350 feet long. It is built in a manner which permits running water over part of it, producing a baudelot effect. As it enters the tank the water is introduced to the "Freon" coils through small holes bored in the lower side of a pipe, which is located directly over the bank of refrigerant coils.

Control of the ice-making tank is by means of a high pressure float. Mr. Munson states the controls are adjusted so that the compressor can operate "24 hours a day" when it is necessary. The tank is equipped with a 1-hp. brine agitator, and a V-type York trunk coil.

The smaller of the compressors, a 2-hp. unit, handles the refrigeration load from four walk-in coolers located in the basement of the building, and four reach-in units installed in the kitchens. The walk-in coolers are used for beer, dairy products, meat, and delicatessen products; the reach-in refrigerators are the bakery, short-order chef's, and service boxes. Finned coils are used on all of these refrigerators.

CUTTING THE COSTS

Mr. Munson reports that the reduction in horsepower has made a large difference in the cost of operating the hotel refrigerating system and that the elimination of excessive starting and stopping of the compressor has further reduced operating costs.

In selling commercial equipment Mr. Munson believes that a man should "sell himself first," and then consider the equipment needed from the prospective owner's point of view.

"Letting the customer know you understand his problem and that your experience will help him to a satisfactory solution of those problems is very important," Mr. Munson asserts.

HE OUGHT TO KNOW

Mr. Munson should know something about the "customer's point of view." After five years with York in Brooklyn he took a two-year course in refrigeration at the York factory. During the depression he applied this knowledge of refrigeration to operating ice plants and now holds a chief engineer's license in New Jersey and New York. He has found this experience very valuable in the sale of commercial equipment—especially on deals running over ¾ hp.

After working with General Refrigeration Corp. Mr. Munson joined the Detroit office of Westerlin & Campbell about two years ago. At the present time he is in charge of commercial refrigeration sales and "package" air conditioning, running up to 25 tons capacity.

Just Published

The Handbook Refrigeration Men Have Wanted for Years

Tables
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Service Data
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Application Drawings
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Practical Definitions
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Impartial Facts
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Pocket Size.
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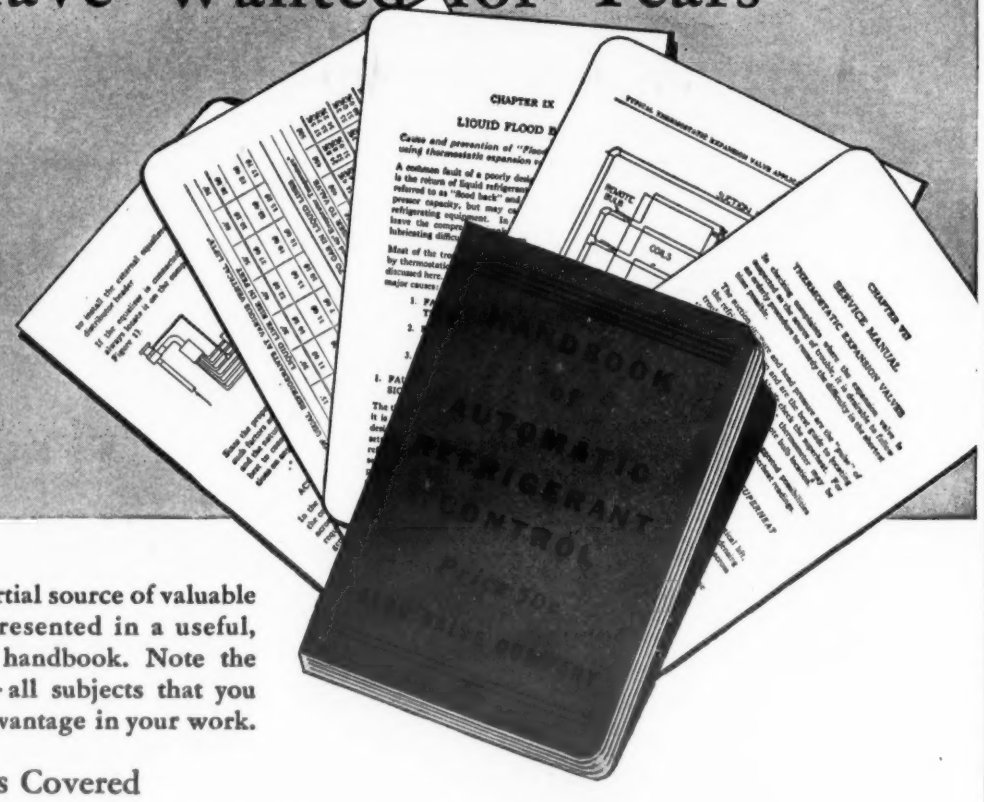
76 Pages



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Practical Definitions of Air-Conditioning and Refrigeration Terms.

Tables and Equivalents
Specific heats — Pressure — Temperature — Pressure drop in lines — Liquid and Suction line sizes — Latent heats.

The Refrigerating System
Capacity — The evaporator — Gas velocity.

Thermostatic Expansion Valves
Operation — Selection — Location — Typical Installations.

Ammonia Thermostatic Expansion Valves.

Service Manual (Trouble Analyzer).

Pressure Drop
Cause — Effect — Remedy — Low side drop — High side drop.

Liquid Flood Back
Cause and prevention.

Magnetic Stop Valves.

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For a limited time only, your Alco Jobber will offer a plan whereby you can get this practical and useful handbook without cost.

For the first time complete engineering, application, and service information on refrigerant control has been published in one convenient pocket manual.

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2620 Big Bend Blvd. St. Louis, Missouri

ALCO *Engineered Refrigerant Controls*
FOR HIGHEST EVAPORATOR EFFICIENCY

Omaha Electric League Will Stage Appliance Show With Builders

OMAHA, Neb.—A complete refrigeration and electrical appliance show included in Omaha's 1940 Better Homes and Building exposition to be held March 26 to 30 in the city auditorium has been assured by cooperation of the Omaha Electric League with the exposition management. The electrical show formerly has been held later in the spring.

There will be 74 booths at this year's show, including a complete representation of electric refrigerators and a number of home air conditioning units.

Wichita Philco Dealers Preview 1940 Products

WICHITA, Kan.—Philco dealers of the Wichita trade area previewed refrigeration and air conditioning products for 1940 in a meeting at the Lassen hotel as guests of the McKelvey Co., distributor.

Present at the meeting were: J. M. Otter, midwest sales manager; D. H. Stickle, sales promotion manager; G. F. Parshall, manager of refrigeration sales; E. C. McKelvey, head of the distributorship; Harry Boyd Brown, national merchandising manager; W. H. Campbell, southwest division manager; and W. E. Kress, district manager.

Buffalo Firm Host At Philco Sales Meeting

BUFFALO—A dealers' dinner and sales meeting at which 1940 models of Philco electric refrigerators were introduced, was held recently in Hotel Lafayette here by Bergman Philco Co., division of W. Bergman Co., distributor of Philco radios and refrigerators.

Merchandising plans for the new models were outlined by General Sales Manager Thomas A. Kennally, of Philco. Divisional Sales Manager Stuart A. Falk also attended the meeting. Sol J. Levy, general manager of the Bergman Philco Co., and Floyd Barber, sales manager, also spoke.

Southern Wholesalers Sells Auto Supplies Branch At Frederick

WASHINGTON, D. C.—In order to concentrate its activities on Norge and RCA Victor products in the Washington and Baltimore markets, Southern Wholesalers, Inc. has disposed of its Frederick, Md. automotive supply branch business to two of its veteran employes, Bernie Callan and Harry Cramer.

In announcing this sale, William E. O'Connor, Southern Wholesalers' president, stated that his organization would continue to expand its automotive supply business in the Washington and adjoining territory, in addition to aggressively pushing the Norge and RCA lines in the territory covered by its Washington headquarters and its Baltimore branch.

Gardner Joins Sales Staff of Simmons Distributing Corp.

BALTIMORE—Jack Gardner, formerly with the wholesale division of B. F. Goodrich Service firm here, has been appointed to the sales staff of the Baltimore branch of Simon Distributing Corp., Hotpoint and Motorola distributor. He will serve as assistant to William B. Middleman, who is in charge of sales for the distributorship's local appliance operations.

Peterson Heads Household Sales For La Crosse Firm

LA CROSSE, Wis.—Leonard M. Peterson has been named sales manager of household goods for the George C. Philips Appliance Co. here.

ReDisCo Moves To New Detroit Headquarters

DETROIT — National headquarters of ReDisCo, financing subsidiary of Nash-Kelvinator Corp., have been moved from 7310 Woodward Ave. to 2051 West Fort St., announces G. V. Egan, vice president of ReDisCo and treasurer of Nash-Kelvinator.

Kelvinator's Detroit branch, formerly located at 4809 Woodward, also has been moved to the Fort St. address. Ray Walsh is branch manager, and Ralph Day is assistant manager.

Speed Queen Appliance Co. In Central Location

BINGHAMTON, N. Y. — Speed Queen Appliance Co., handling Speed Queen laundry equipment and Westinghouse refrigerators and ranges, has moved to a more central location at 60 Exchange St. C. J. Huth is proprietor.

G-E Establishes Chapter Of Retail Development League At Jacksonville

JACKSONVILLE, Fla. — Formation of the local chapter of General Electric's Retail Development League and election of chapter officers took place here recently.

Officers are: F. C. Smith, Heat & Cold Equipment Co., president; R. T. Chace, Gainesville, Fla., vice president; D. S. Colwell, Hayden Burns Co., secretary-treasurer.

The Jacksonville chapter is one of several coming under the jurisdiction of G-E's distributing branch at Tampa. C. F. Harding, Jr., Jacksonville, was elected honorary president of the local chapter.

New Omaha Norge Dealer

OMAHA, Neb. — Reitz Sales & Service here has been appointed a dealer for Norge appliances.

'Progress Days' Up Sales At Cheyenne

CHEYENNE, Wyo.—Eight Cheyenne firms dealing in electric refrigerators and home appliances, report a "very worthwhile" increase in sales as the result of a "Progress Days" campaign, in which special window displays were installed, salesmen were given a bonus, and a full-page cooperative advertisement was run in local newspapers in addition to large individual advertisements throughout the week.

Cooperating in the campaign were C. H. Simpson, Forbes Co., Woodley-McDowell, J. C. Penney's, Christensen Co., Wells Co., Ware Furniture Co., and Cheyenne Light, Fuel & Power Co.

Named Appliance Manager

DALLAS, Tex. — Frank LaPrelle has been appointed manager of the appliance department at W. A. Green Co. here.

Binghamton League Will Study Causes, Cures Of Radio Interference

BINGHAMTON, N. Y.—Election of officers and appointment of a committee to study ways of eliminating local radio interference were the principal items of business disposed of at a recent meeting of the Electrical Council of Binghamton.

Officers elected were: Marvin Gleason, chairman; Harold T. Blanding, vice chairman; George R. Kolb, secretary; and William Nisbet, treasurer. Pursuant to a recently adopted resolution, H. M. Long, outgoing chairman, became a director of the council.

The problem of radio interference is one which has evoked considerable criticism in recent months. An attempt is to be made to enlist the cooperation of radio service men, broadcasting stations, and utilities in seeking a solution for the present difficulties.

NORGE is the BIG VALUE REFRIGERATOR

YOU CAN PROVE IT right in your SALESROOM

•

YOU CAN SELL NORGE ON THE BASIS OF COST PER SQUARE FOOT OF SHELF SPACE and PROVE that NORGE IS THE BIG BUY!

BIG VALUE FEATURES OF NORGE MR-6

a typical volume and profit model

1. Oversize food compartment—6.65 cubic feet—nearly a "7" at the price of a "6"
2. 13.48 square feet of shelf area
3. 5 shelves with shelf insert
4. Stainless steel, sealed, odorproof freezer
5. Refrigerated shelf for fast freezing
6. 2 standard, 1 wide, ice trays with rubber grids, freeze 8 lbs. (72 cubes) at one time
7. Ice tray release bar
8. Ice-O-Bar for instant cube release at the refrigerator
9. Exclusive Norge Handefroster
10. Oversize crystal glass Coldpack
11. Porcelain interior, acid resisting bottom
12. Automatic electric floodlight
13. Sliding Hydrovoir under glass top
14. New Norgite insulating door panel
15. Heavy blanket-type insulation
16. Strikingly beautiful cabinet finished in white Norgloss
17. Beautiful chromium hardware
18. Royal Rollator Cold-Maker, permanently oiled, sealed, refrigerant cooled
19. 5-Year Warranty on Rollator Cold-Maker

This is an exceptional range of features in a low-priced, big volume, full profit refrigerator.

BIG VALUE FEATURES OF NORGE AR-6A

a typical promotion model

1. Oversize food compartment—6.19 cubic feet
2. 11.95 square feet of shelf area
3. Stainless steel freezer with beautiful door
4. Refrigerated shelf for fast freezing
5. 2 standard ice trays with metal grids; 1 double-width dessert tray
6. Freezes 8 lbs. of ice at one time
7. Large cold storage tray for meats
8. Automatic interior floodlight
9. Lifetime white porcelain interior, acid resisting bottom
10. Steel cabinet finished in brilliant white Norgloss
11. Sparkling chromium hardware
12. Beautiful black base with toe room
13. New Norgite insulating door panel
14. Heavy blanket type insulation
15. Royal Rollator Cold-Maker, permanently oiled and sealed, refrigerant cooled
16. 5-Year Warranty on Rollator Cold-Maker

Compare these features with other lowest-priced models and realize what super values Norge offers.

On any basis of comparison, the Norge line has what it takes to make sales AND PROFITS. Promotion models are competitively priced, yet packed with features that build up into wonderful advertising—and are really great values. Big volume and profit models are so big, handsome and so full of luxury features that they border on de luxe merchandise and the price tags make them a value sensation. Model illustrated is MR-6—nearly a "7" at the price of a "6" and a typical Norge value. A complete line including excellent promotion models and profitable volume models; a great advertising and merchandising program, new finance plans, overnight service on wanted merchandise make Norge worth investigating.

NORGE DIVISION BORG-WARNER CORPORATION
DETROIT, MICHIGAN

In Canada: Canadian Radio Corporation, Fleet St., Toronto
Washers and Ironers - Gas and Electric Ranges
Commercial Refrigeration

Send the Coupon for Details

Investigate the *complete* line of Norge appliances . . . the opportunity for profit from matched unit sales.

_____ 1940

NORGE DIVISION BORG-WARNER CORP.
670 E. WOODBRIDGE, DETROIT, MICHIGAN

Please give me details of the new Norge line, merchandising and financing plans, and advertising support given Norge dealers.

Name _____

Firm _____

Addres _____

City _____ State _____

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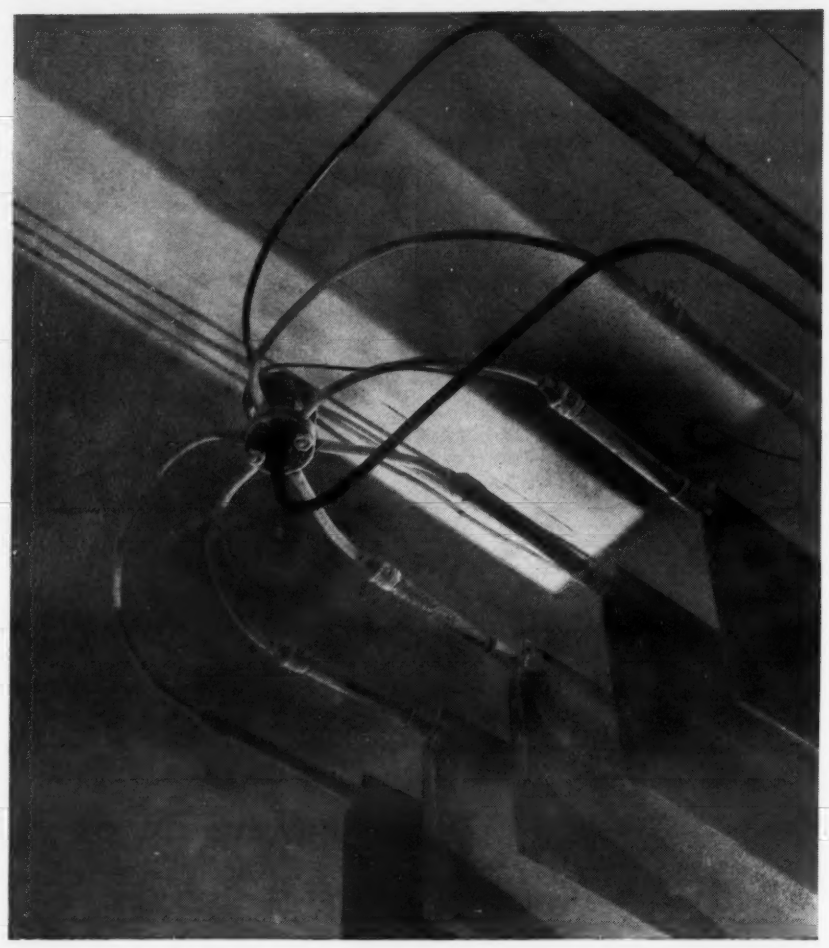
The Oversize NORGE for 1940

Refrigerant Distribution In Locker Plant Job



Shown here is the actual installation of a multi-outlet thermostatic expansion valve on a plate-type evaporator in a locker storage plant. Tubing running under the valve (which appears black in the picture) is refrigerant liquid line.

Multi-Outlet Thermostatic Expansion Valve Finds Application In Locker Plant Jobs

Feeds Refrigerant Evenly To Series of Cold Plates

By Richard S. Dawson, Alco Valve Co.

In the locker storage plants now being widely installed, the "plate" type evaporator has been popular.

Since the load requirements of these installations ordinarily call for a large number of the "plate" type evaporator units, the refrigerant control may present a serious problem.

The experience of a refrigeration contractor in Des Moines, Iowa, is typical in this respect and will serve to illustrate a very nice solution to this problem.

This contractor found on his early installations that it was not practical to use a great number of evaporators connected in series, which in effect forms a continuous tube single circuit evaporator. Because of the low temperature split for which these jobs are ordinarily designed, it is desirable to keep the pressure drop through the evaporator at the minimum to avoid lowering the mean temperature difference which would cut down the effectiveness of the evaporator.

Since the pressure drop per lineal foot in the evaporator will vary roughly as the square of the number of pounds of refrigerant handled per minute, the necessity of keeping the evaporator circuit length (and the pressure drop) at the minimum becomes apparent.

The first solution to the problem was to use a large number of thermostatic expansion valves, preferably one valve to supply refrigerant to not more than two "plate" evaporators in series. In this case, the valve cost was not only high, but it was exceedingly difficult to attempt to balance out a large number of expansion valves, as anyone knows who has tried it.

Next solution tried was to use a header on both the liquid and suction connections, and one thermostatic expansion valve feeding the liquid manifold or header. It was found necessary to install orifices in the liquid manifolds to control the refrigerant distribution.

This was a very expensive "cut and try" operation, and the refrigerant still did not feed evenly to all sections of the evaporator under varying load conditions. This operation had the objection that it cut down the effectiveness of some sections of the evaporator.

It was then that the multiple outlet thermostatic expansion valve was investigated. Originally developed for multiple circuit air conditioning coils, the multi-outlet valve was found to be a solution for this contractor's problem. One valve would supply as many as eight evaporator sections or circuits, cutting down installation costs considerably.

In addition, it was found that the overall performance of the evaporator was considerably improved. Installation time required for adjusting was reduced and the refrigerant was fed uniformly to all sections of the evaporator regardless of variations in the load conditions.

The sketch in Fig. 1 shows an arrangement of a six plate evaporator with one plate per circuit, with the refrigerant control supplied by a multi-outlet expansion valve. Fig. 2 shows a similar arrangement using 12 plates in the "cold plate" evaporator, with two plates per circuit in series.

The multi-outlet thermostatic expansion valve is so designed that the body need never be removed from the line. The thermostatic power assembly and the valve seat assembly may be inspected or renewed by simply breaking a two-volt flange connection.

The multiplicity of advantages offered by this valve have led to its wide adoption on "plate" type evaporators in locker storage plants.

Loraine, Texas Site of New Cooperative Plant

LORAINE, Tex.—A 300-unit locker and freezer plant to be operated cooperatively by farmers of Scurry, Fisher, Nolan, and Mitchell counties in connection with the cheese manufacturing plant of the Loraine cooperative association was opened here recently.

The cooperative was established on the initiative of J. C. Hall, president of the Loraine bank, and by officials of the chamber of commerce of that community, it is reported. Officers of the association must be producers of farm products as well as stockholders. The cheese and locker plants represent an investment of about $17,000.

162 Locker Plants Now Operating In Nebraska

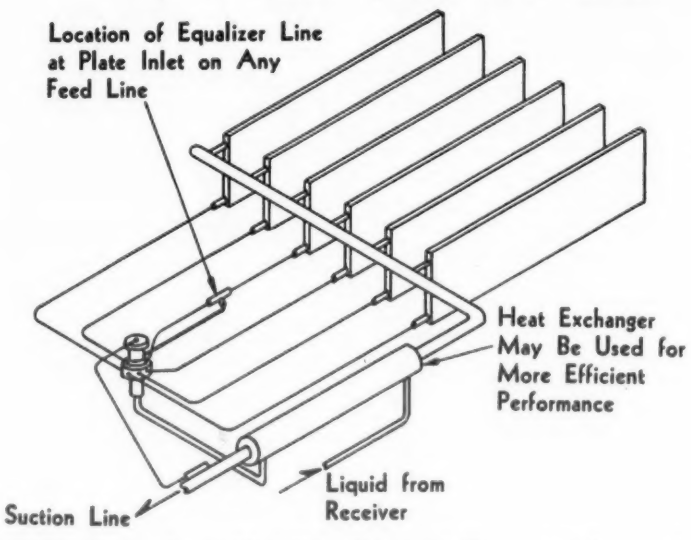
LINCOLN, Neb.—There are now 162 plants offering refrigerated locker service in Nebraska, ranging from 50 to 500 individual lockers each, according to Prof. W. J. Loeffel of the Nebraska college of agriculture.

The present trend, he said, as plants go into smaller towns, is toward fewer boxes per plant, and the new service is expected to go ahead full steam in Nebraska this year.

Arkansas Firm To Offer Locker Facilities

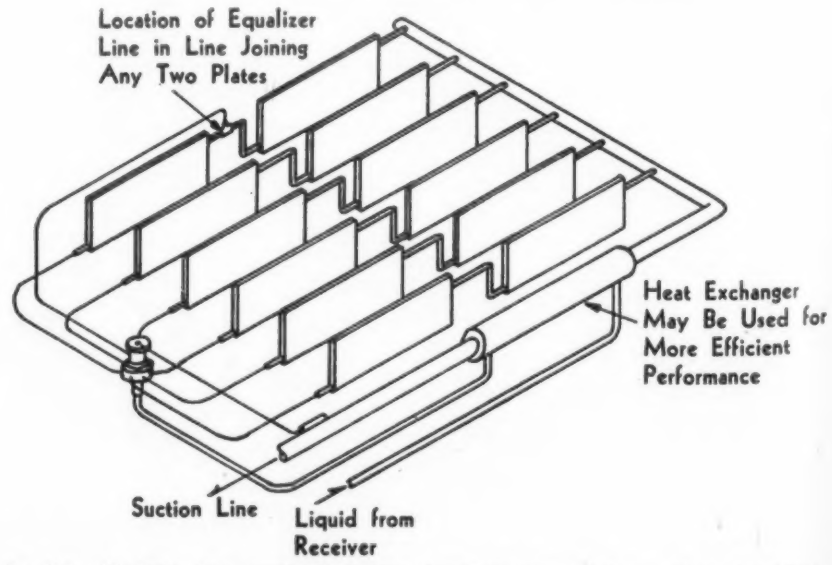
AMITY, Ark.—A cold storage plant and meat curing department will be installed in the Amity Ice & Creamery Co. plant here shortly, according to W. E. Shankle of Camden, Mo., who has just purchased the company from the Bank of Amity. Mr. Shankle has named Herbert Benton manager of the new department.

Fig. 1—One Plate Per Circuit

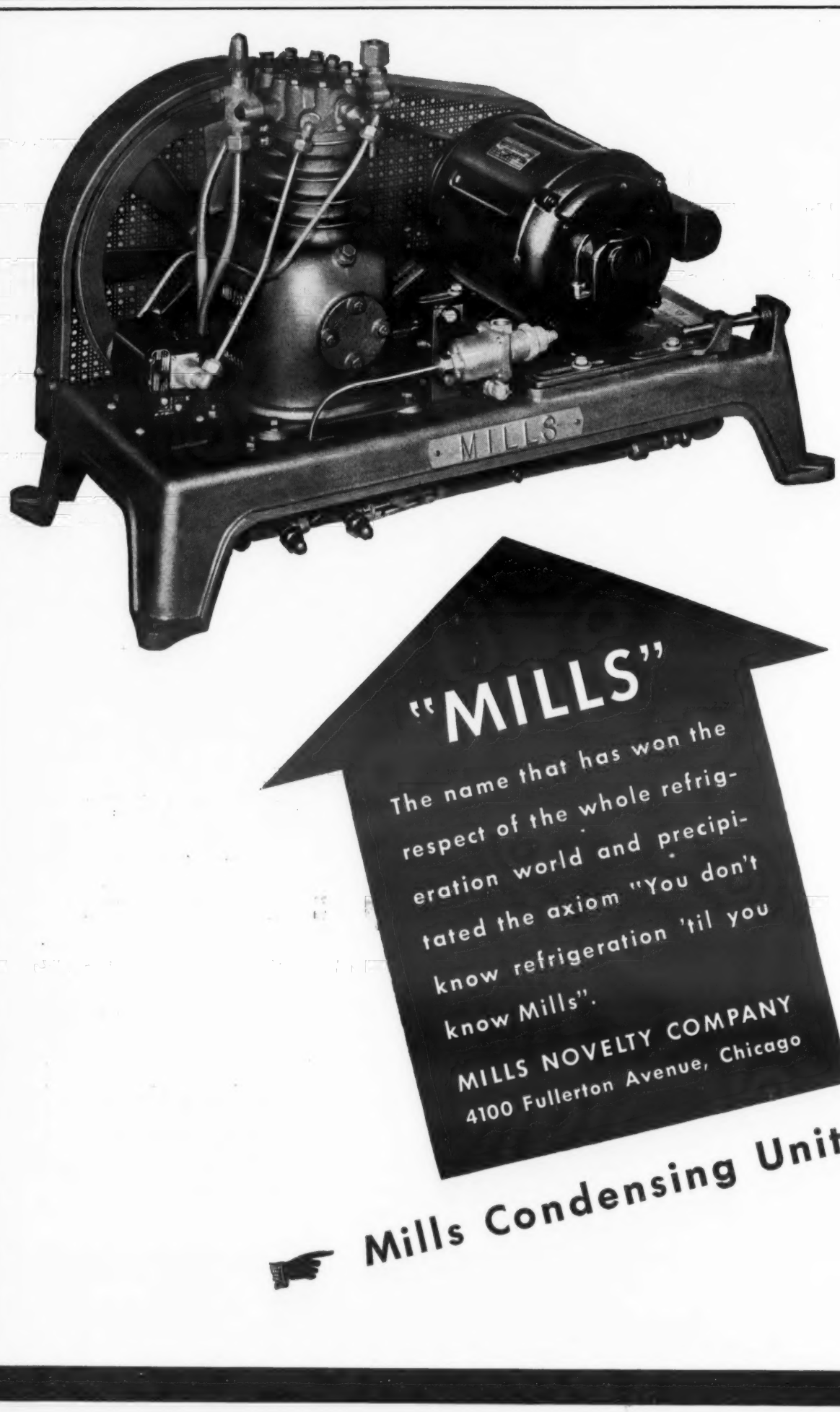

Location of Equalizer Line at Plate Inlet on Any Feed Line
Heat Exchanger May Be Used for More Efficient Performance
Liquid from Receiver
Suction Line

Arrangement of multi-outlet thermostatic expansion valve where six-plate evaporator is used.

Fig. 2—Two Plates Per Circuit


Location of Equalizer Line in Line Joining Any Two Plates
Heat Exchanger May Be Used for More Efficient Performance
Suction Line
Liquid from Receiver

In this 12-plate job, each feed line handles two plates. Note location of the equalizer line, and suggestion for a heat exchanger.


MILLS
"MILLS"
The name that has won the respect of the whole refrigeration world and precipitated the axiom "You don't know refrigeration 'til you know Mills".
MILLS NOVELTY COMPANY
4100 Fullerton Avenue, Chicago
Mills Condensing Units

Give the Air Conditioning Prospect Some Simple, Rule-of-Thumb Standards

Grace & Bement, Inc.
Advertising Counsel
Detroit
March 6, 1940

Air Conditioning &
Refrigeration News:

Last summer a dentist friend of mine became interested in a room cooler for his workroom. He listened to the stories of several salesmen of air conditioning companies but was so confused by them as to the best value that he finally ordered a duplicate of a unit installed for another dentist. Since then I have talked with many people whom I know could benefit by summer air conditioning and found in each case a keen interest but a belief that it would pay them to wait another season or two.

Many believe this market resistance is on a basis of "the prospect thinks the price is too high." This reaction has always been in evidence during the introductory period of any new specialty. We ourselves know that compared with other mechanical products, room coolers are not high priced today and are within the means of that great group of people who were the first to use automobiles, refrigerators, radios, etc.

It is my firm belief that the air conditioning industry needs a Buyers' Guide—a simple set of specifications giving prospects rule-of-thumb standards by which they can better understand the product in service.

Hasn't it always been true that the manufacturer in the introduction of new products has given the prospect some standard of comparison? In the early days of the automobile, the prospect very glibly compared and discussed cars in terms of horsepower, wheel base, and number of cylinders. He bought with confidence because he felt he had some standard of comparison.

Likewise, we made refrigerator sales with less resistance once the industry established a few buying guides, such as the popular size for the average home, ice tray capacity, and temperature regulation.

In the air conditioning industry each manufacturer is making an honest attempt to educate the prospect but each manufacturer's suggestions are new and different to the prospect so that after hearing several sales stories, he feels sorely in need of some simple guide and a standard of comparison.

This Buyers' Guide I speak of will probably not be correct in the minds of the engineers nor will it be an entirely accurate measure of good performance, but it will serve its purpose if it has an appeal to the layman and instills confidence with the prospect. Certainly this was true of the early automobile buyer.

Of course, it is not enough to simply establish a Buyers' Guide without placing an activity behind it. So much of the summer air conditioning sales story is of an educational nature that it seems only reasonable that joint action of the manufacturers, the electric utilities, and the dealers would accomplish much in developing a great market.

Air conditioning in total is too broad a subject for such joint promotion, but packaged air conditioning, for instance, can be jointly promoted and is of interest to the largest market as it has an application to some percentage of the approximately 23,000,000 wired homes and 1,280,000 small retail establishments, office buildings, and institutions in the United States.

Packaged air conditioning, therefore, offers the industry an opportunity to develop a Buyers' Guide and to jointly interest many more in this new service than can possibly be done singly—and as an industry it can demonstrate to the country at large the permanency and popularity of summer air conditioning service.

P. B. ZIMMERMAN,
Vice President

L. G. Estep Goes To Wall Paper Company

CHICAGO—Leslie G. Estep, for the past six years a development engineer for Kelvinator, has been appointed chief engineer of United Wall Paper Factories, Inc.

In his new position he will supervise and direct all mechanical development and design carried out in the company's research laboratory here.

Fire Destroys Scranton Manufacturing Plant

SCRANTON, Pa.—An early morning fire which defied the efforts of seven fire companies for more than six hours, recently practically destroyed the plant of Lightaire Mfg. Co., local maker of louvers, radiator covers, and air conditioning equipment.

Origin of the fire is unknown. The company carried $16,000 insurance.

Massive Federal Bank Gets Cooling System

ST. LOUIS—York Ice Machinery Corp. will start installation of a $100,000 air conditioning system in the fortress-like Federal Reserve Bank Building here shortly. The 14-year-old building has always been a problem during summer months for those who work in it, as the walls are 6 feet thick and windows comparatively small.

13 Degree Differential Specified By Drug Chain In Cooling System Design

BIRMINGHAM, Ala. — Uniform policies of Walgreen Drug Co. in reference to air conditioning in some 500 stores in 39 states were revealed at the recent opening of the latest of its super-type units in Birmingham. A 26-ton installation was made in this store by Bethune Electric Co., Westinghouse dealer. J. A. Cunningham was the installation engineer.

This installation provides for a 12 to 13° difference between the inside and outside temperatures, or somewhat less than the 15 and sometimes 17° variance prescribed in some installations. This seems to mark one policy of the Walgreen organization, namely, to make sure that customers don't feel uncomfortably cool on entering the store.

Consideration is given to the fact that drug store customers for the most part do not remain long inside the store. In other words, the organization serves a fast moving clientele, thus customers hardly stay long enough in the store to adjust their bodies to the cooler atmosphere, and after all the air conditioning is primarily for the comfort of customers rather than that of sales persons, however important the latter may be.

Another factor about the Walgreen organization is that its store opening personnel is thoroughly familiar with air conditioning. They know just what to expect and what to require of the concern making the installation.

For instance, the contract with the Bethune Co., Mr. Cunningham stated, specified the installation should be made within 29 days from the time remodeling work was begun on the building. The contract further specified each day or part of a day on which certain parts of the building would be released for placing of fixtures and stocks. Things worked out just as specified, and Walgreen was open and ready to do business on the day appointed in advance. All sub-contractors had completed their work on scheduled time.

Since Walgreen has stores scattered across the United States and in varying climatic conditions, its policy in reference to air conditioning is interesting. Lower temperatures than that prescribed in Walgreen stores might possibly be desirable in department stores, dress shops, barber shops, and the like, where the customer normally remains longer, but the Walgreen organization assumes that smaller temperature drop is more acceptable to customers in its stores. Humidity is maintained at an average of 50%.

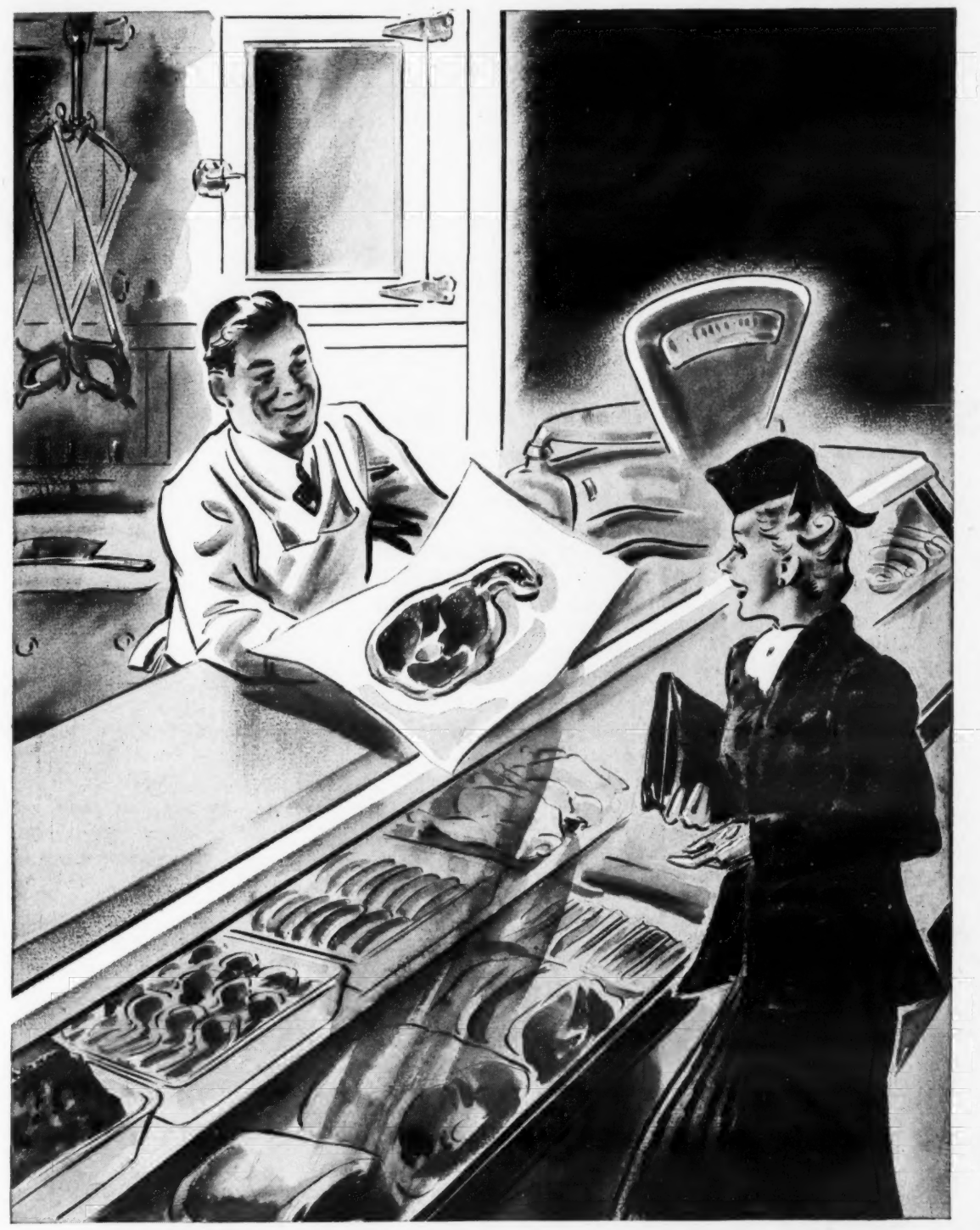
Maternity Hospital Installs Conditioning

ERIE, Pa.—Year-around air conditioning for protection of mothers and infants has been installed in 14 rooms of the new $700,000 Maternity Home at St. Vincent's Hospital here. Air conditioning has been installed in four delivery rooms, three large nurseries, six isolation rooms, and a premature baby room.

The system is unique in that the air is used only once. Every six to seven minutes the air in each room is completely replaced with a supply of outdoor air which has passed through the air conditioning system —cooling or heating, cleaning, humidifying or dehumidifying.

Each air conditioned room has individual control of both temperature and humidity. Two separate systems supply approximately 6,000 c.f.m. of conditioned air. The equipment is placed atop the hospital in a penthouse.

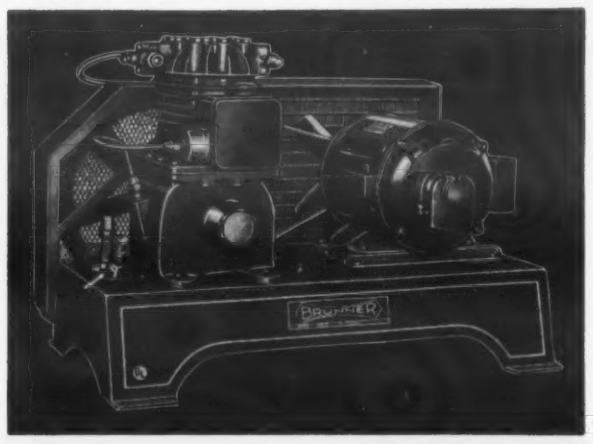
In the delivery room, relative humidities in winter are kept high to prevent static electricity from being set up by friction on rugs, clothing, etc. Sparks which may ignite ether or other inflammable gases will not occur in rooms in which the air has a high relative humidity where operations are in progress.



Fillets or frankfurters...both at the peak of perfection—THANKS TO BRUNNER

Brunner is the butcher's friend, in more ways than one. For he knows he can *depend* on a Brunner Condensing Unit to give him just the degree of uniform cold he wants to protect meat flavor, tenderness and appearance. What's more, he knows that this indispensable safeguard to the saleability of his products is costing him a minimum for power and up-keep. And this is mighty important in an age of competition where penny-a-pound price margins can mean the difference between profit and loss.

This economy of operation that Brunner is famous for resides in the Brunner way of building a condensing unit. It's a commercial unit from the ground up —with extra heavy stamped steel base... oversize castings... special bronze bearings throughout... more than ample condenser... heavy duty motor. All this, plus a skillfully *controlled* method of manufacture that achieves a precision of fit accurate to within half the thickness of a human hair! The practical results are marked reduced friction and wear, minimum losses due to leakage, and greater all-'round operating efficiency. There's a correct capacity Brunner for every type of installation — air and water cooled models from ¼ H. P. to 25 H. P. Every Brunner has Underwriters' Laboratories approval and carries the U. L. Seal. Brunner Manufacturing Co., Utica, N.Y., U.S.A.



BRUNNER

FOR YEARS THE SYMBOL OF QUALITY

AIR CONDITIONING & REFRIGERATION NEWS

Trade Mark registered U. S. Patent Office; Established 1926 and registered as Electric Refrigeration News

Published Every Wednesday by BUSINESS NEWS PUBLISHING CO. 5229 Cass Ave., Detroit, Mich. Telephone Columbia 4242

Subscription Rates
U. S. and Possessions, Canada, and all countries in the Pan-American Postal Union: $4.00 per year; 2 years for $7.00. All other foreign countries: $6.00 per year. Single copy price, 20 cents. Ten or more copies, 15 cents each; 50 or more copies, 10 cents each. Send remittance with order.

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VOL. 29, NO. 11, SERIAL NO. 573
MARCH 13, 1940
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Sold Out

NOW that the returns are officially announced for January and February, it appears that the household electric refrigeration industry is off to a flying start.

January, 1940, with 227,822 units was the best January in the history of the Nema group. February, preliminary reports indicate, will also show unusually high volume. If this pace keeps up, 1940 will be little short of "terrific."

Low prices are given the major credit for these high-water-mark figures. Not only have the reduced price schedules attained amazing word-of-mouth publicity which is bringing buyers, shoppers, and "just lookers" into appliance stores in droves, but they have stirred dealers to unusually early activity.

Dealers Find Refrigerators Are 'Hot Line' Already

Normally, dealers would still be occupied with washing machines, ranges, radios, and small appliances about this time of year. But now they are following the lead of the Southwest and the Pacific Coast, and going after business *now*.

Refrigerators are admittedly the "hot line" of 1940.

Newspaper advertising by dealers has already assumed mid-April proportions; it has many national advertising managers worried—they're afraid their funds will run out before the warm weather comes. Most encouraging of all is the resuscitation of outside selling and the cold canvass. This practice really is "bringing in the sheaves."

Will Prices Climb Back Later This Season?

One reason for all this-feverish-in-advance-of-the-season activity is the somewhat common opinion held by scores of dealers that prices will climb back up later this season. (It would not be surprising to find that some quota-bent field men were supporting and even spreading this supposition.) This opinion, however, is not shared by the informed.

An interesting phenomenon is the "inability" of manufacturers to make shipments of the lowest-priced boxes. Hundreds of dealers are reporting to prospects that they are temporarily "sold out" of the rock-bottom jobs. Shipments are exceedingly slow in arriving from the factories. This fact forces them to "sell up" to the higher-priced boxes.

Manufacturers Don't Profit On Price Leaders

Official explanation for this inability to make shipments on the "leader" models is that orders have come in so fast and furiously that factories are snowed under. The more canny might note that manufacturers make next-to-nothing on the rock-bottom boxes, don't care whether they sell any or not.

Perhaps manufacturers, too, have learned how to play the "nailed-to-the-floor" game so long practiced by the chain stores, department stores, and others who feature "loss-leaders" in their advertising.

Exceptional Values Offered In Higher-Priced Boxes

However, the values offered in the boxes next up the line are exceptional as judged by any past standards—less than half the prices quoted on 1932 jobs, and the new models are far better refrigerators, too. The American public is being offered tremendous values in all brackets this season, so there would seem to be no necessity to push the boxes which are give-aways.

The better-equipped refrigerators are not only more profitable to sell, but they will give buyers more complete user-satisfaction.

Distribution Costs Are Lowered By Refrigeration

RECENTLY the editorial page of the NEWS considered the problem of "the high cost of distribution," concluding that this "high cost" is largely accounted for by the variety of services demanded by the customer. About the only way this cost could be reduced comparably with the savings made through mass production would be to give customers what they need when it is convenient for the distributors to do so—instead of "what they want when they want it."

Multiquart Milk Containers Available To Refrigerator Users

One of the classic examples of the cost of distribution is the milk business, which shows an enormous spread between cow and consumer. Most of this spread is chargeable to delivery service.

Now comes refrigeration, however, to reduce this cost of delivery. In New York and California, certain milk distributors now deliver two-quart containers *every other day,* at a considerable saving to customers.

Explanation is made that most milk route customers now have electric refrigerators of adequate size, and can easily accommodate milk containers which hold two or more quarts. This eliminates the need for the expensive daily delivery.

It is entirely possible that study of food distribution methods may reveal other ways in which the ample-sized household electric refrigerator can be of service in reducing the cost of getting food from producer to consumer.

Frozen Foods Eliminate Losses At Supply Sources

Already refrigeration has helped immensely in this cause by cutting spoilage losses in transit and storage. It has also helped the housewife save by enabling her to make quantity purchases and bargain rates.

And as the use of frozen foods increases, undoubtedly refrigeration will be of vast service in eliminating losses through wastage at the production source—losses caused because markets for the foods are not available when the foods are ready for the market.

They'll Do It Every Time . . . By Jimmie Hatlo

B.K! OUR BRANCH MANAGER AT SPRINGDALE WIRES HE'S HAVING TROUBLE LANDING— THAT ORDER FROM MC GRIEF & CO. MAYBE WE OUGHT TO RUN OUT THERE AND GIVE HIM SOME HELP!
YES, YES, J.W. OF COURSE, WE MUST HELP HIM—GIVE HIM EVERY ASSISTANCE POSSIBLE! MISS TWEETY! TWO SEATS ON THE NIGHT PLANE FOR SPRINGDALE!
SALES MANAGER
JIMMY LAIO
12-14 THE "HELP"
THANX TO H. ESCHENBRENNER COLUMBUS, OHIO
WE'D LIKE TO GET IN A ROUND OF GOLF TOMORROW. CAN YOU FIX US UP AT YOUR CLUB? AND—AHEM— I HEAR THIS TOWN'S GOT SOME PRETTY LIVELY NIGHT SPOTS.
HOW ABOUT A COUPLE OF BLONDES? GOT ANY GOOD NUMBERS IN YOUR BOOK? AND DON'T FORGET TO GET US ON THAT PLANE TOMORROW!

LETTERS

Complete, Reliable Course of Study

Georgia Power Co.
Americus, Ga.
March 1, 1940

Gentlemen:

Please send me by return mail Manual No. A-1, "The Principles of Summer Air Conditioning." I hope to get the complete library on air conditioning as shown in the 1940 Refrigeration & Air Conditioning Directory but will buy them one at a time.

I have been in the refrigeration industry for about six years, and during this time have serviced and installed practically all the leading makes of refrigerators both domestic and commercial. I am also very interested in air conditioning and hope to get into the industry at some future date either as a service engineer or service man. Now my point in telling you this is to find out if you believe the library complete, listed in the Refrigeration & Air Conditioning Directory will prepare me to get into the industry with the practical training that I have in refrigeration.

If you have any manuals other than I mentioned please advise me about them provided you feel they will help me.

W. F. PARKER

Answer: The Acme Manuals on air conditioning by F. O. Jordan were originally published serially in AIR CONDITIONING & REFRIGERATION NEWS beginning Sept. 23, 1936.

In 1937-38 the text was revised and published as a set of 7 manuals entitled "Air Conditioning Made Easy." The new Acme series contains the same text matter with slight revisions. Note that the new title is derived from the initials of the old title.

We believe that these books provide the most complete, reliable, and practical course of study in air conditioning now available. All phases of the subject which the installation and service man, the layout designer, or estimator is likely to encounter, are clearly explained.

A great many charts and tabulations of data are given in their logical order in the text pages with instructions regarding their use. All such data is now being collected in a separate book (No. A-8) so that it may be used conveniently for reference purposes by those who understand the practical application of the tables.

We offer another manual, No. B-1, by T. H. Mabley which is especially suitable for those who want a short-cut to the subject. In this book, 25 specific applications are analyzed. Each one is designed and estimated in detail. This data is based on actual jobs figured by an experienced air conditioning engineer.

Manuals Approved By Washington Schools

Public Schools of the
District of Columbia
Franklin Administration Building
Washington, D. C.
Jan. 27, 1940

Publisher:

At the meeting of the Board of Education held on Jan. 17, 1940, the reports of the textbook committees for the Teachers Colleges, Senior High Schools, Junior High Schools, Vocational Schools, and Elementary Schools, were approved by the Board of Education.

These reports not only contain a list of new texts to be added to the present list of approved books, but also include texts to be discontinued for use.

The reports referred to are enclosed herewith.

FRANK W. BALLOU,
Superintendent of Schools

Note: The list includes Master Service Manuals No. 1, 2, 3, and 4 on Household Refrigeration, adopted for use in the vocational schools.

. . . and Now He's An Educated Man

Fleischer & Sons
21 Park St., Orange, N. J.
Feb. 15, 1940

Gentlemen:

The inclosed check is for renewal of our subscription. Naturally, we are taking advantage of your subscription offer—please send us Manuals SF-1 and SF-2.

Will you also send us a "Buyer's Guide." As we do not know the cost of this book please bill us.

The AIR CONDITIONING & REFRIGERATION NEWS has been exceptionally helpful to us. At the time Mr. Taubeneck spoke at the Servel convention in New York City last year he took my subscription . . . he seemed shocked when I mentioned that I did not know that there was such a magazine covering the refrigeration field. So shocked that he told the world of my ignorance.

Please tell your worthy editor that I've been educated. I think the renewal of my subscription will convince him.

ABE FLEISCHER

QUOTED

'Notes On Feathers'

From *Printers' Ink,* March 1, 1940

Newspaper readers are currently being confronted with the following delicate sentiment, in type some three inches high:

"We say . . . HORSE FEATHERS!"

In this instance Confucius is, mercifully, not guilty. "We" designates a prominent manufacturer of electric refrigerators and the saying is the headline of a full-page advertisement.

The object of the imprecation is the advertising of competing manufacturers, as a set of illustrations and text above the heading makes clear.

Animated figures representing refrigerators of other brands are pictured, some unsympathetically, as stating claims of being "best" and "cheapest."

Although the slang of the phrasing is something of a unique touch, this type of advertisement is in itself nothing essentially new. Every once in a while somebody gets the idea of attracting attention by making an outright, frontal attack on the statements of competitors.

A further reading of the text reveals, however, a decided innovation in the attack technique. The opening paragraph of the copy reads:

> "You *are going to see* a lot of claims made for refrigerators in 1940. Many of them will sound very attractive. But bear in mind that sometimes the most extravagant claims are made for the products that merit them the least."

The italics are supplied. Whereas it is a common characteristic of advertising which attacks advertising to cast a generalized slur upon all members of the industry, without citing the specific offenses or offenders, note that in this instance the charges are not even leveled at claims which are a matter of record. The message urges readers *to disbelieve claims that may be made in the future.* Other manufacturers are charged with crimes which they have not yet committed and consumers are urged to convict them in advance.

The time to find fault with another's acts is when they have been perpetrated.

This course is admittedly slower. But it has some advantages that may be worth considering. It omits the likelihood of unfair damage to parties who happen to remain innocent of the anticipated misdeeds. It eliminates the possibility of throwing the shadow of public distrust upon advertising of *all* members of the industry, including that of the accuser. And it has the final virtue of seeming a little more like common sense in a time when business as a whole and advertising as a whole are being subjected to intensive attack by outside reform elements.

We have never seen a horse feather, but we understand that the chickens which come home to roost bear a plumage that is quite unpleasant to behold.

PEI Decries Loose Use Of Term 'Porcelain' In Appliance Field

CINCINNATI—Activated by the increasing use of the term "porcelain" by various manufacturers in the appliance field, the executive committee of the Porcelain Enamel Institute met here last week to consider the possible effect of such usage on the porcelain enamel industry.

Committee members unanimously agreed upon two basic conclusions: first, that the terms "porcelain" and "porcelain enamel" could be fairly used in an interchangeable manner when descriptive of the finish on refrigerators or other appliances; second, that references to the term "porcelain" by manufacturers of non-ceramic finishes were highly flattering to the porcelain enamel trade but misleading to the public.

In regard to the first conclusion, the committee agreed that the buying public has so long associated the terms "porcelain" and "porcelain enamel" with this type of product that no possible misunderstanding could be entertained in the mind of the average individual when such terms were used.

In respect to the second conclusion, committee members decried the use of such terms as "porcelain-like," "as good as porcelain," "wears like porcelain," and "feels like porcelain," by manufacturers of other types of finishes, and voiced the opinion that such references had no justifiable basis, and were misleading.

The executive committee instructed Charles S. Pearce, managing director of the institute, to immediately confer with manufacturers within the industry in an effort to clearly establish proper usage of these descriptive terms, so that no doubt would arise in the public mind as to what constitutes porcelain enamel.

Co-op Washer Drive Delayed Until O.K.'d By 75% of Industry

CHICAGO—No cooperative advertising campaign will be launched by the washing machine industry until it has the approval of at least 75% of the industry's producing firms as represented in the membership of the American Washer & Ironer Manufacturers Association. At least that was the decision made by the association at a special meeting here last week when it approved the recommendation of its advertising committee.

Inasmuch as this required percentage of members was not represented at the meeting, no poll on the issue could be taken, but it is understood that each manufacturer member will be polled individually.

Also up for discussion at this meeting were points that might possibly be included in a proposed code of trade practices. A committee headed by H. P. Nelligan, Easy Washing Machine Co., will study the proposed regulations further.

Free Range Wiring Offer Extended In Chattanooga

CHATTANOOGA, Tenn.—Extension by Chattanooga Electric Power Board of its free wiring offer on electric ranges and water heaters is expected to increase sales of both appliances. Last fall, when free wiring first was offered, 800 ranges and 395 water heaters were sold.

With the offer extended to Sept. 1 this year, sales quotas of 2,100 ranges and 900 water heaters have been set for dealers.

New Orleans Dealers To Wage 'War' on Kitchen Drudgery

NEW ORLEANS—A "council of war" preparatory to a big offensive drive against the unsold electric and gas appliance market of New Orleans was held at the banquet sponsored March 1 by New Orleans Public Service, Inc. for representatives of the city's appliance businesses.

Sales plans for this "battle for new business" are hinged on an "Over the Top in 1940" theme. E. N. Avengo, manager of the Public Service company's dealers' sales division was master of ceremonies at the banquet.

First barrage in the new offensive was laid down by W. J. Amoss, general sales manager of the utility, who declared:

"This war of ours will be against drudgery. Victory in this war will mean happier living and better business to our city. If we reach our objective, the New Orleans of a year from now will be a brighter city, better warmed in winter and better cooled in summer, and a city relieved of a tremendous amount of home drudgery and discomfort."

To make the goal of the drive more pointed, a series of tableaux and sketches were presented to demonstrate the difference between old and new methods of performing such household tasks as washing, cooking, and cleaning.

Martial air of the meeting was carried out by having all who attended wear overseas caps and by having various military weapons placed around the meeting room.

A. G. Riddick, general sales manager of C. T. Patterson & Co., represented refrigeration dealers at this meeting; E. W. Schneider represented dealers of air conditioning and ventilating equipment; and Jimmy Roos of Electrical Supply Co., represented general appliance dealers.

Refrigeration In Navy Detroit ASRE Topic At March Meeting

DETROIT—"Refrigeration Needs of the U. S. Navy" will be the timely topic considered by members of the Detroit section of American Society of Refrigerating Engineers at their meeting on Thursday, March 14, in Naval Armory, 7600 E. Jefferson Ave.

Speakers will be Commander P. K. Fischler and Lt. Commander E. I. McQuestin, U. S. N. The meeting, which is scheduled for 8 p.m., will be preceded by a dinner at 6:30 in the Naval Officers club of the Naval Armory. Members and guests are invited to attend the dinner, price of which is $1 per plate.

32,000 Mississippi Area Farmers Get REA Power In Last Four Years

JACKSON, Miss.—Since creation of the Mississippi REA by the Legislature in 1936, approximately 9,000 miles of new power lines have been built or will be completed shortly by 22 electric power associations, Evon A. Ford of Taylorsville, chairman of the board of directors of the Mississippi REA, has announced.

These projects cost $7,500,000 and furnished electricity for the first time to 32,000 farm families, he pointed out. In addition, Mr. Ford said, hundreds of thousands of dollars are being spent by these farmers and others in the state for electric refrigeration and air conditioning equipment.

Schneiderhahn Reports 200% Gain In Sales Of 1940 Leonards

DES MOINES, Iowa—A. A. Schneiderhahn Co., Leonard distributor in Iowa and western Illinois, reports sales of 1940 Leonard refrigerators to dealers show a gain of 200% so far this year over the same period in 1939.

The company has recently completed the moving of its Davenport warehouse from 218 Brady St., which was in the downtown shopping district, to 316 E. Fifth St., which is in the wholesale district. New location provides a truck-level loading door for the convenience of dealers who desire to pick up merchandise. New warehouse is located on railroad tracks to facilitate the unloading of carload shipments.

New Davenport warehouse provides 10,000 sq. ft. of storage space. New display rooms for convenience of dealers have been opened.

January Refrigerator Sales Drop 5% In Omaha Area

OMAHA, Neb.—January electrical appliance sales reports by dealers in the Omaha territory showed increases in some appliances, decrease in others, from the same month in 1939. Ranges, up 87½% from January, 1939, and ironers, up 43% in the same period, showed gains. Refrigerator sales were off 5% in January, compared to the same month a year ago.

Dealers' comparative sales reports for January were:

	Unit Sales 1940	1939
Refrigerators	202	213
Ranges	15	8
Water Heaters	3	3
Washers	213	289
Ironers	44	30
Vacuum Cleaners	144	230
Radios	1,073	1,265
Oil Burners	..	48
Stokers	..	10
Roasters	48	40

Michigan Fair Trade Act Faces Test on Appliance Case

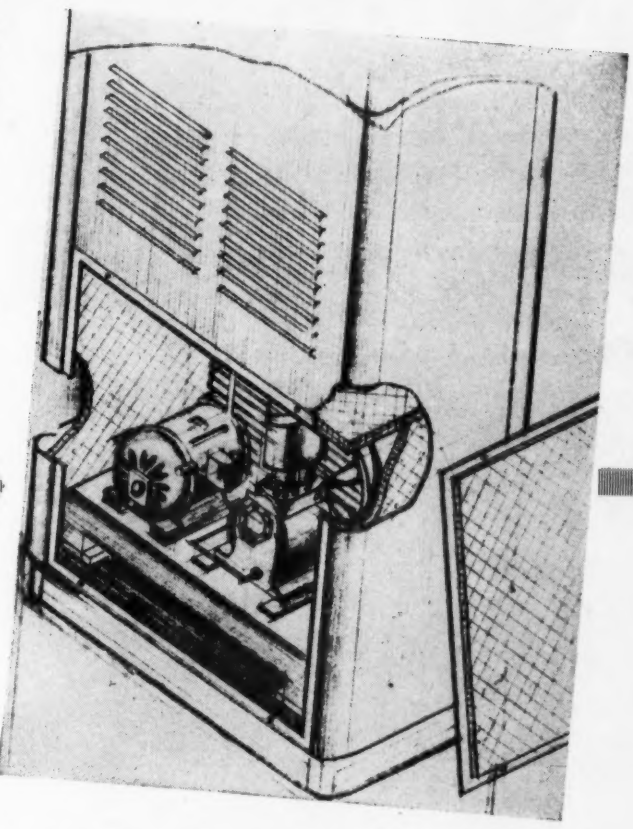
GRAND RAPIDS, Mich.—Test of the constitutionality of the Michigan fair trade act is being sought in the answer to a suit filed in circuit court here against Morris D. Gibson, doing business as Gibson Specialty Co., by Flexible Shaft Co., Chicago. The company charges that Mr. Gibson violated the act and asks the court to enjoin Mr. Gibson from selling the company's electrical equipment at prices lower than those fixed in Chicago.

Mr. Gibson claims in his answer that he did not sign a fair trade agreement and declares that he is operating in a low rent district enabling him to sell at lower prices than other dealers, especially since he sells on a cash basis. He charges that the Michigan act gives legislative powers to individuals and monopolistic powers to manufacturers.

Room Cooler Manufacturers:

HERE'S HOW TO KEEP MOTOR NOISE INSIDE THE MOTOR COMPARTMENT AND CONDENSATION OFF THE JACKET OF COOLING COMPARTMENT

. . . Profit by Experience Which Has Saved Money for Refrigerator and Cooler Manufacturers in Other Lines



Every electric room cooler has an electric motor. Even the best motors make noise. This noise *can be materially reduced* by lining the motor compartment of your cooler with Celotex Superlite Refrigerator Insulation.

Moisture will condense on cold surfaces. The solution is to keep the metal jacket around the cooling compartment from getting cold enough to condense atmospheric moisture. The high efficiency of Celotex Superlite Refrigerator Insulation makes it the *ideal material* for lining cooling compartments. It prevents condensation, *and increases the efficiency of units by reducing the heat absorption* through the jacket. And it prevents drumming of the metal shell at the same time.

This efficient insulation, which has been adopted by so many refrigerator and cooler manufacturers, weighs 7½ pounds per cubic foot, bone dry. Its thermal conductivity is .26—and its sound reducing efficiency is being demonstrated in many motor-driven refrigerating units.

Line your motor and cooling compartments with Celotex Superlite, and see what a difference it makes—how much added selling ammunition it gives you! Remember—Celotex Superlite *can be obtained cut to size and pre-fabricated* to fit your cabinet. It is available in any desired thickness. Let us supply you with working samples, FREE, for your experimentation. Just write on your letterhead, giving sizes desired.

The word Celotex is a brand name identifying a group of products marketed by The Celotex Corporation.

CELOTEX
REG. U. S. PAT. OFF.
SUPERLITE REFRIGERATOR INSULATION
THE CELOTEX CORPORATION • 919 NORTH MICHIGAN AVENUE • CHICAGO, ILLINOIS

SERVICE MEN Prefer Artic because of its
REG. U.S. PAT. OFF.

★ HIGH QUALITY
★ EASE OF HANDLING
★ COAST-TO-COAST DISTRIBUTION
★ DU PONT TECHNICAL ASSISTANCE

DU PONT
E. I. DU PONT DE NEMOURS & COMPANY (INC.)
The R. & H. Chemicals Department
Wilmington, Delaware
District Sales Offices: Baltimore, Boston, Charlotte, Chicago, Cleveland, Kansas City, Newark, New York, Philadelphia, Pittsburgh, San Francisco

Dayton
V-BELTS
Silent, vibrationless, dependable, long-lasting. Powerful grip prevents slippage. A nearby distributor carries a complete stock for appliances and machines.
THE DAYTON RUBBER MFG. CO., DAYTON, OHIO
World's Largest Manufacturer of V-Belts

NO OIL SLUGGING
Get the facts
Williams Oil-O-Matic Heating Corp.
Bloomington, Ill.
WILLIAMS
ICE-O-MATIC
REFRIGERATION

Anaconda Copper
Refrigeration Tubes
Unusually long lengths!
ANACONDA
THE AMERICAN BRASS CO
FRENCH SMALL TUBE BRANCH

MASTERCRAFT
ADJUSTABLE PAD and CARRYING HARNESS
NAME OF REFRIGERATOR
Efficient, sturd, and economical. Provides safer handling and thorough protection of refrigerators. Pad and harness are separate units and both adjustable to practically all styles and sizes of cabinets.
Adjustable Pad $5.75 each
Adjustable Harness $6.25 each
f.o.b. Chicago.
Lettering on pad at only $1.00 per order extra. Write for latest folder and prices on pads for refrigerators, washers, ironers, ranges, radios, etc.
BEARSE MANUFACTURING COMPANY
INCORPORATED 1921
3815-3825 Cortland Street, Chicago, Illinois

Disney Cools Cartoon Gang In Air Conditioned Studios

Complex System Has 1,400 Tons Capacity

BURBANK, Calif.— Mickey Mouse, and his boss, Walt Disney, are preparing to move into the first completely air conditioned studio which is now under construction on a 51-acre tract in the San Fernando Valley near here. The Animation building alone will provide air cooled quarters for 900 creative artists, and General Electric engineers installing the equipment are arranging to have everyone comfortable—even the irrascible Donald Duck.

Despite the complications presented by rooms having varying exposures, occupancies, and internal loads, Walt Disney, and his chief engineer, William Garity, demanded the upmost provision for the health and comfort of employes. Tremendous heat loads from banked studio lights had to be disposed of without the creation of drafts, and in the Camera building the theme song was "Keep it Clean," for every particle of dust may be harmful to a finished picture.

Air requirements for orchestra and dialogue stages must be adjustable to serve one person or a hundred with equal facility. Fresh air intakes had to be guarded against bringing in the zooming of airplane motors from the nearby Union Air Terminal.

Although the formal opening of the new studios was not scheduled until April, parts of the studio facilities were used in the creation of "Pinocchio," Disney's newest full length feature which is just being released.

CENTRAL PLANT JOB

Basically of the central plant type, the air conditioning system operates with hot or cold water to produce specified temperatures. A natural supply of 67° underground water on cold days pre-heats the entering air, and on hot days pre-cools it, thereby reducing materially the overall operating cost. Including the effect of both the natural water supply and the refrigeration equipment, the total tonnage of the job is more than 1,400, with approximately 1,300 motor horsepower used in the operation of the various blowers, water circulating, and refrigerating machines.

A 600-hp. G-E multiple condensing unit plant, highly efficient at full or very light load, supplies refrigerated water for summer air conditioning all buildings on the central plant lines.

In the winter most of the buildings are heated by air conditioners receiving their heat from two central 190-hp. boilers. Only the smaller, isolated buildings have independent air conditioning arrangements—all others utilize heated or cooled water from the single source.

Using the heating or cooling effect of the water supplied by the central plant, individual air conditioners serve each building. They condition the air at a single point—or at several load centers—in each building and in most cases are located in the basement. From the conditioners the air is conveyed to the various rooms through ducts.

In the winter the air is heated to the proper temperature, humidified, and carefully cleaned. It is kept in constant motion and fresh air is supplied in the proper proportion (in most cases 100% fresh air is used, with no room air recirculated back into the rooms). In summer the same system supplies cooled, dehumidified air.

The largest building on the grounds, arranged to accommodate some 900 creative artists who "animate" the characters in Walt Disney Productions, is the Animation building. This structure has a total floor space of 150,000 sq. ft. and is composed of eight wings extending four on each side from a central tier. Altogether there are more than 300 individual offices here.

BASEBOARD EXHAUST GRILLES

Each of the eight wings is conditioned by its individual air conditioner unit. Air is exhausted from rooms through continuous special baseboard grilles also embodying open-face conduits for light, telephone, and signal wiring, as well as compressed air lines for the artists' air brushes. The "used" air is expelled to the out-of-doors.

In the Animation building no room air is recirculated; only fresh air is delivered through the conditioners. This air is brought to the conditioners from a level far above the ground. Then it is passed through filters and next comes to the well water coils which, being at approximately 67° F. pre-heat in winter and pre-cool in summer.

Following this step, the air is treated by vapor-jet humidifiers. Next the incoming air is divided—part is diverted through hot-water coils into a hot plenum, and part is routed through refrigerated water coils into a cold plenum.

By making available sources of cool and warm air, and using proportioning dampers for individual take-offs, G-E and Disney engineers have assured that air delivered to each zone will always be a properly blended mixture of warm and cool conditioned air from these two plenum sources—the exact proportion of the mixture is determined by thermostats, and in each room a constant airflow is maintained.

Since there are 156 independent thermostatic control stations in the Animation building, and conditions must be maintained closely throughout, the mixture of warming and cooling elements must be very accurately regulated.

AIR-LIGHT FIXTURES

Following treatment in the central conditioners located in each of the wings, the air is ready for delivery to the individual rooms through special air-light fixtures. These fixtures, of special design to give better light to artists in the Animation building, at the same time deliver an even film of the conditioned air across the ceiling. Thence the air moves slowly and without draft through the room to the baseboard exhaust. The result is excellent distribution.

On the roof of Disney's Animation building is located the Animator's Club, complete with gymnasium, massage room, and lounge. This is served by a separate air conditioner.

Cleanliness is of particular importance in the Camera building, for a single particle of lint or dust on a painting might, in being photographed, produce light effects that would be harmful to the finished picture. To guard against such an occurrence, the camera rooms are kept scrupulously clean, floors are carefully waxed, and the operators even wear special "lintless" clothing.

Only entrance to the camera rooms is through a "de-dusting" chamber where any loose particles on the clothing of operators are blown off by high velocity air jets and drawn down through a grating in the floor. From there, on its way outdoors, the same air is routed to cool the motor-generator sets which supply electricity to the cameras.

In the camera rooms, the problem of heat disposal without drafts was encountered, since some of the single cameras use more than 70 KW of lighting energy (70 KW of lighting energy produces about 240,000 B.t.u. of heat per hour—it would take 40,000 lbs. of ice melting every 24 hours to equalize this heat generation). Where possible, exhaust hoods are used to draw off air at the points of heat concentration, and multi-outlet air distribution permits the delivery of the required cooling effect without drafts. In this instance the same air is used for three purposes: first, for some of the general air conditioning in the Camera building; second, for "de-dusting"; and third, for cooling the motor-generator set room.

CLEAN AIR NECESSARY

In the camera rooms where a major portion of Pinocchio was shot, the air conditioning filters cleanse the air so completely that white, fine mesh cloth mats placed directly before the air delivery grilles for five hours show no sign of lint or dirt. In the Cutting building, by

(Concluded on Page 15, Column 1)

COMBINATION FIXTURE for lighting and air conditioning used in the Walt Disney Studios at Burbank, Calif., is explained to Walt Disney by Elliott Harrington (right) of General Electric.

THE BOSS HIMSELF inspects the system. Walt Disney looks over the air conditioner in the Animation building, which will provide cool working quarters for 900 creative artists. No recirculated air is used here.

SOUND STAGE at the new Disney studios. Air is delivered to the stage area through slots between convolutions of the walls and ceiling. Return grilles are located under platform risers. Special precautions were necessary to prevent noises which would interfere with recordings.

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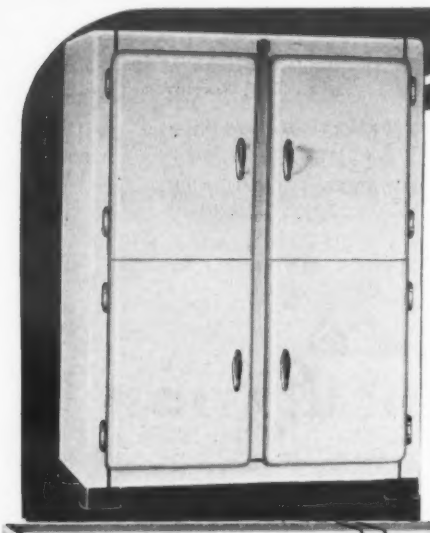

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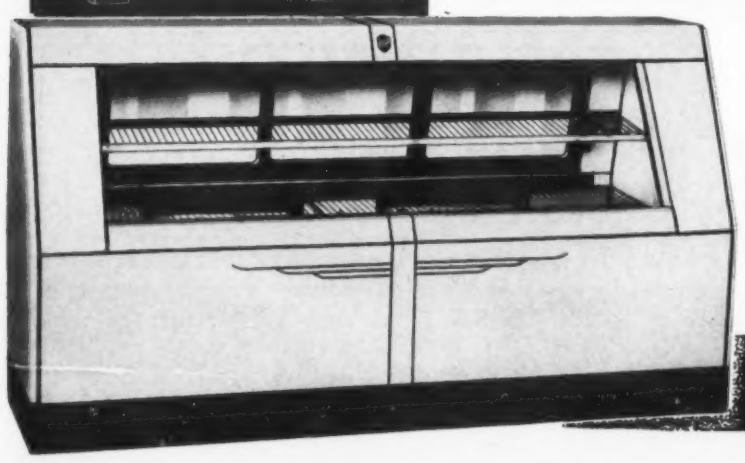

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Weather Studies Used To Design Cooling

(Concluded from Page 14, Column 5)

similar methods, these super-clean conditions are reproduced.

The orchestra stage in Walt Disney's new studios is built with a special acoustic shell backing up the orchestra in order to provide maximum brilliance of sound without echo or distortion. Since at some times large groups of musicians may be on this stage for recordings, while at other times there may be only a single performer, controllable as well as even air distribution is needed.

To permit this, the entire space above the top of the acoustic shell is built air-tight, and the air conditioning system fills the air-tight space with air under slight pressure. Released to the stage through a series of slots behind the convolutions in the shell, the air is exhausted evenly through grilles located in each platform riser, below.

Another large stage in the studios is the dialogue stage. Here, as in the case of the orchestra stage, special precautions have been taken to prevent noises which would interfere with satisfactory recordings. Nearness of the Union Air Terminal, at Burbank, necessitated careful sound baffling of the large fresh air intakes to eliminate the roar of large transport planes which sometimes climb directly over the studio location. Carefully selected blowers, low air velocities, acoustically treated ducts, and sound traps are among the other preventive measures taken.

An example of the care with which the air conditioning system was designed is found in weather studies made by General Electric and Disney engineers preliminary to installation. Since wide climatic variations occur within distances of a few miles from the sea coast, the design could not safely be based on the dry bulb and wet bulb temperature standards applying in Los Angeles. Fortunately, extensive data was available at the nearby Union Air Terminal.

ADJUSTABLE OUTLETS

In all cases throughout the buildings, air outlets are individually adjustable for the space served, and delivery into the rooms can be directed both horizontally and vertically in order to give correct air distribution. More than 750,000 c.f.m. of air are to be moved by the 60 odd blowers being installed. For power they require roughly 320 motor horsepower.

The engineer in the central plant can determine individual air conditioner operation in all buildings by means of indicating lights. Further, he can check temperatures and humidities at various points in the buildings by use of a master indicating board.

In the celluloid storage vaults all paintings on celluloid are kept at even temperatures and humidities to guard against shrinkage which would disturb the all-important registry of the sequence drawings. In addition, correct air conditions protect the paint from deterioration.

Wherever the inflammable film is handled, as in the Cutting building, automatic fire dampers are designed to slide over all air inlet and exhaust openings when released by a fusible link. The link would break readily if a fire should start, thereby closing the air conditioning grilles.

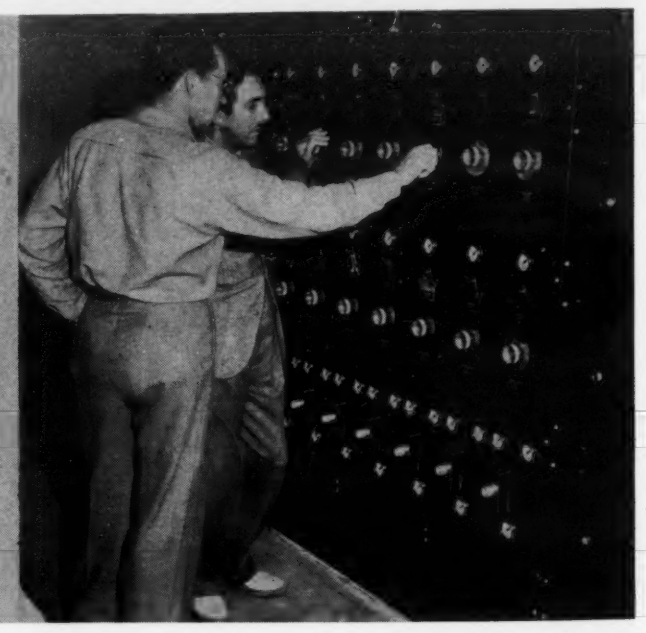
From Roofing To Cooling

BINGHAMTON, N. Y.—Binghamton Slag Roofing Co. is preparing to set up a complete air conditioning and refrigeration department under the management of Charles M. Griffith who has been associated with Baker, Smith & Co., New York air conditioning contractor, in an engineering capacity.

Believes In Its Product

WASHINGTON, D. C.—Indicating its faith in the products which it sells, Simon Distributing Corp. recently equipped its enlarged and revamped quarters here with the Gale air conditioners which it handles.

MULTIPLE BLOWER FAN forming part of the air conditioning system is the subject of inspection by Walt Disney, William Garity, chief Disney engineer, and Elliott Harrington of G-E. Some 60 blowers are used in the system.



CONTROL PANEL for the studio system, with Mr. Garity telling Mr. Disney what it's all about. Air conditioner operation in all buildings is flashed to the central plant by means of indicating lights on the master board.

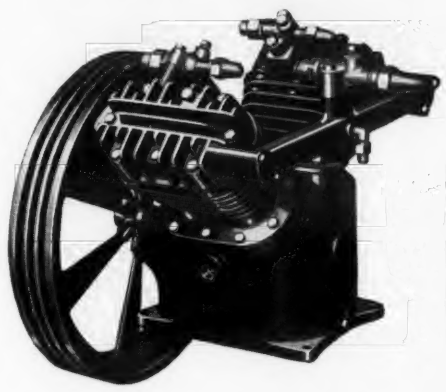
Conditioning Gains In Up-State New York

BINGHAMTON, N. Y.—The phenomenal growth of air conditioning in the 47 counties of upstate New York served by New York State Gas & Electric Corp. is apparent from a recent report made by William B. Turnbull, air conditioning engineer for the utility.

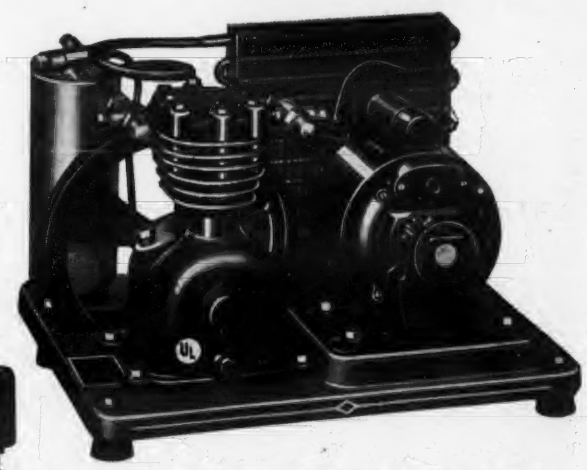
The following is the connected horsepower handling air conditioning loads for the past five years:

1935	0
1936	9
1937	152
1938	64
1939	288

All sales recorded were made by independent dealers, as the New York State Gas & Electric Corp. does not merchandise air conditioning. The report does not include any strictly industrial air conditioning, which would increase the tonnage to a large extent.

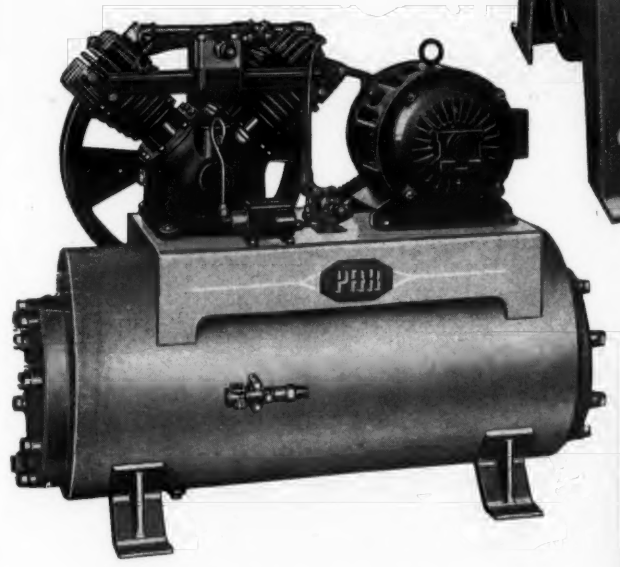


Par compressors are made in 8 sizes from 1/5 to 10 H.P. in both 2 and 4 cylinder models.



Close coupled models are available in 3 sizes from 1/5 to 1/3 H.P.

Commercial models are available for standard and heavy duty applications in 23 sizes from 1/4 H.P. to 5 H.P. in both air and water cooled types.



Air conditioning models of large capacity with cleanable tube and shell condensers are made in 4 sizes—7½ to 20 H.P.

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AKRON—PERCY G. HANSEN
CINCINNATI—THE MERKEL BROTHERS CO.
CLEVELAND—DEBES & COMPANY
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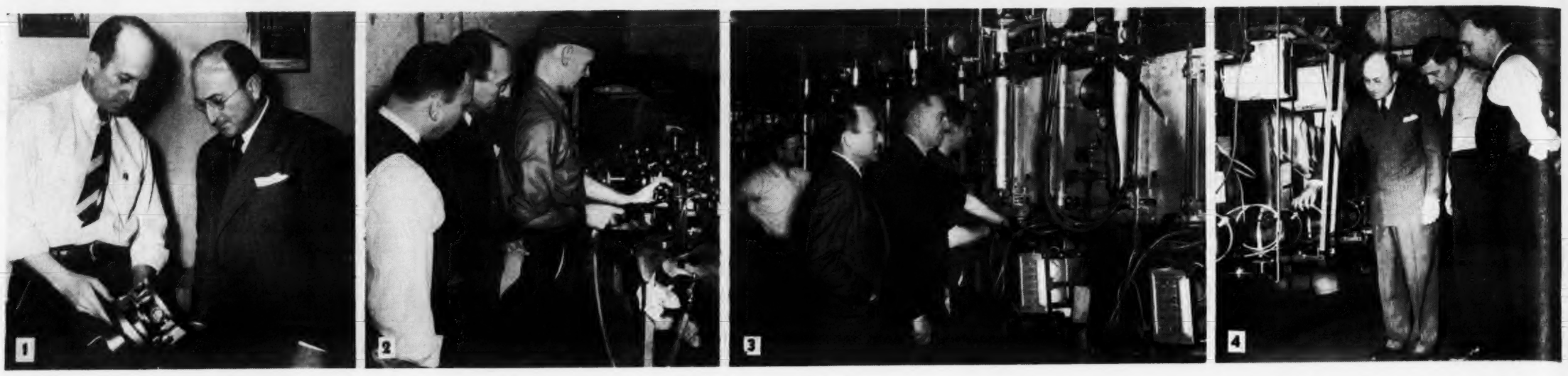
Ray Cosgrove Swings Into Action As Crosley's General Manager



(1) Herb Money (left), Crosley's chief refrigeration engineer, analyzes the construction of a Crosley compressor for Mr. Cosgrove. *(2)* With Production Manager A. G. Bruck (in shirt sleeves) in tow, Mr. Cosgrove inspects the compressor assembly line. *(3)* Executive Vice President Lewis Crosley (in dark suit) now joins the party as they watch the compressors being charged with oil and refrigerant. *(4)* In a specially constructed room where temperature and humidity are kept at high points Crosley refrigeration units are thoroughly tested before mounting in Shelvador cabinets. Here Mr. Cosgrove visits this test room in the company of A. E. Braun, purchasing agent (center), and A. G. Bruck.

(1) Crosley refrigerators are tested for silence of operation, too, in a soundproof room. Mr. Cosgrove and John W. Craig (right), refrigeration engineer, listen to the unit's faint hum while a decibel meter records the noise level as picked up by a microphone. *(2)* Tom Berger, general sales manager (left), grins his pleasure as he demonstrates interior features of the Crosley Shelvador to Mr. Cosgrove. *(3)* Radios are under Mr. Cosgrove's wing now, as well as the Crosley auto, range, and washing machine. In this picture Clarence Felix (left), chief radio engineer, visualizes the performance of a Crosley radio receiver for Mr. Cosgrove by means of a machine which graphs the curve of the receiver's tone fidelity. *(4)* Lewis Crosley rejoins Mr. Cosgrove as he watches the inspection of a radio chassis. Mr. Cosgrove has made himself familiar with every operation in the plant.

Alabama Firm Finds Salvage & Profit High In Reconditioning Commercial Boxes

MONTGOMERY, Ala.—An extensive business in the remodeling and reconditioning of used refrigerated display cases, walk-in coolers, and beverage coolers, has been built up by Montgomery Radio & Refrigeration Co. The business has grown to such an extent that the company has moved to a new plant with departments for rebuilding cases as well as for displaying both new and reconditioned merchandise.

The company either buys used equipment outright, or reconditions it under contract for the owner, says B. Noland, an executive of the company. More profit can be made in the used equipment than in the new, he declares, although the company handles a line of new cases and can supply customers with either type.

"We're proud of the fact that we've helped start many small grocers, restaurant owners, and drink operators in business with used equipment—persons who otherwise might never have been able to launch their own enterprise," Mr. Noland says.

"After they get established in business, they're prospects for new equipment—so we feel that we're building future customers for new cases, and at the same time providing an initial market for reconditioned equipment, which would otherwise be a total loss to its former owners."

The company salvages just about everything in reconditioning an old case. Old ammonia coils often are reworked into the company's own forced air units, with which rebuilt cases are equipped. A reconditioned case of this type may sell for $400, compared with about $1,000 for a similar piece of new equipment.

Specialty with the company is a beverage box with a blower unit in the bottom which forces air up through a hollow wall and diffuses it on top of the stack of bottled goods, making these bottles coldest for immediate serving. Another feature of the box is a refrigerated shelf for 5-cent candies.

Reconditioning of old walk-in coolers includes extensive use of enamel finished masonite for the exterior trim, hardwood plyboard for the interior, and new corkboard insulation where needed. Defective woodwork is replaced, and the old drip pans in the coolers removed, since they are unnecessary with forced air units.

Refrigeration equipment being discarded by dairies and milk plants also is purchased for salvage by the company. Buying this equipment pays out, even if only the motor can be saved, Mr. Noland says.

Southwest Radio Co. Holds Philco Showing For 350

OKLAHOMA CITY, Okla.—Southwest Radio & Equipment Co., Philco distributor, was host to 350 dealers and salesmen here recently.

J. P. Stewart, Jeff Williams, and W. E. Kress, officials of the firm, addressed the group.

Dates Set In October For Washer-Ironer Week

CHICAGO—October 19 to 26 has been chosen as the date for the third annual National Washer-Ironer Week, sponsored by American Washer and Ironer Manufacturers Association. Promotion of the week produced the industry's biggest retail volume in both 1938 and 1939.

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Copper-Brazed Steel. Copper Coated Inside and Out. Sizes: ⅛" to ⅝" O.D.
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War Putting the Spotlight on New Markets In the Export Sales Field

(Concluded from Page 1, Column 4)

to U. S. possessions totaled $6,193,438, bringing the refrigeration trade outside the United States borders for the five years to a grand total of $96,624,586.

Sales abroad of household and commercial refrigeration units dropped from 160,334 in 1938 to 141,411 in 1939, a decrease of 18,923 or 11.8%.

Compared to the average of the previous four years, 1935-1938, the number of 1939 exports fell off 17.4%. The dollar value of exports during 1939 dropped 5% below the 1935-1938 yearly average.

A gain of 17% was recorded in the refrigeration shipments to Hawaii, Puerto Rico, and the Virgin Islands during 1939. The dollar value of shipments to the three U. S. possessions jumped from $1,158,097 in 1938 to $1,355,884 in 1939.

A dozen countries spent more for U. S. refrigeration parts during 1939 than they did for household and commercial refrigerators together. They are: Czechoslovakia, Denmark, Estonia, Finland, Germany, Italy, Spain, Switzerland, United Kingdom, Canada, Argentina, and Japan.

Exports to three continents gained during 1939 over 1938 in the following amounts:

Gains and Losses

North America	$992,478
Asia	249,465
South America	203,156

To the other three continents, 1939 exports fell off as follows:

Africa	$903,726
Europe	835,471
Australia	236,877

The 20 "best customer" nations for U. S. refrigeration exports during 1939 were as follows:

20 'Best Customers'

Canada	$2,886,235
Union of South Africa	1,301,619
United Kingdom	1,177,941
Brazil	1,102,621
Sweden	1,082,785
Argentina	842,462
Cuba	701,818
France	599,944
Australia	599,746
Venezuela	553,166
Mexico	540,300
Colombia	517,508
Netherlands Indies	471,901
Belgium	307,120
Norway	302,287
British India	299,621
Philippine Islands	283,568
New Zealand	261,486
British Malaya	213,004
Netherlands	203,731

Finland residents spent $89,278 for U. S. household and commercial refrigerators and parts during the first 10 months of 1939 but with Russia's invasion, bought only $4,897 worth of parts during November and December.

Refrigeration trade with Spain picked up slightly to total $4,629 over the lean years of 1938 with $406 and 1937 with $901 in exports but remained far below the peak export years of $334,475 in 1935 and $268,619 in 1936.

Exports to Russia fell to $13,905, the lowest point since the $6,098 total for 1935. For the intervening years, exports to Russia were as follows: 1936—$107,347; 1937—$112,876; and 1938—$40,789.

Almost doubled were exports to China. They went from $32,975 in 1938 to $60,293 in 1939. Exports to Japan jumped from $7,617 in 1938 to $33,518 in 1939, but the totals fell considerably below the previous three years.

Exports to Mexico doubled, totaling $270,159 during 1938 and $540,300 in 1939.

North American, Asiatic, and South American residents spent more money for U. S. refrigerators and parts in 1939 than they did in 1938 while Europeans, Australians, and Africans spent less.

The war in Europe knocked the props out of the U. S. refrigeration export business to belligerent nations and the dollar value of exports to France and the United Kingdom declined during 1939 below 1938 by $813,645.

Exports to France skidded from $1,043,481 in 1938 to $599,944 in 1939, a drop of $443,537, while exports to the United Kingdom declined from $1,548,049 in 1938 to $1,177,941 in 1939, a decrease of $370,108.

Exports to Germany totaled $9,097 during the first part of 1939 but ceased entirely after August. Refrigeration trade with France and Great Britain slumped sharply during the last four months of the year.

Here's what the war did to U. S. export business:

Sales To France & England

1939 EXPORTS TO FRANCE

Month	Household Number	Commercial Number
January	705	17
February	403	31
March	489	114
April	366	13
May	353	5
June	681	558
July	1,206	439
August	1,005	142
September	6	..
October	..	..
November	..	..
December	1	..
Totals	**5,215**	**1,319**

1939 EXPORTS TO UNITED KINGDOM

January	298	227
February	310	149
March	1,097	564
April	1,840	214
May	980	204
June	1,952	51
July	423	18
August	327	48
September	35	7
October	10	48
November	..	..
December	..	..
Totals	**7,272**	**1,549**

Norge Signs 3 Firms In Latin American Countries

DETROIT—Additional South and Central American outlets for Norge products are being placed under contract, three new distributors having been signed by E. N. Guild of the export department, since the former started recently on a four-month trip by air below the border.

Howard Radio Shop in San Juan, Puerto Rico, has taken on Norge, this being the third outlet on the island now under contract to Norge. Others are located at Mayaguez and Ponce.

The second Norge addition is Partidas & Co., at Caracas, Venezuela, which serves also as an outlet for Borg-Warner International. At last report from Mr. Guild, he had signed another Venezuelan distributor, the Componia Anonima Mercantil Venezolana, at Maracaibo.

Mr. Guild, who is now in Columbia, expects to visit the west coast countries, returning via Central America.

Total G-E Sales For '39 Top $300,000,000

NEW YORK CITY — Preliminary results of General Electric Co.'s operations for the year 1939 show sales billed amounting to $304,680,000, compared with $259,484,000 for 1938, an increase of 17%. As announced in January, orders received in 1939 amounted to $360,748,000, or 43% more than in 1938.

Net income for the year 1939, after provision for all charges, amounted to $41,236,000, and was equivalent to $1.43 a share of common stock, compared with 96 cents a share in 1938, an increase of 49%. Cash dividends of $1.40 a share were declared and paid in 1939, compared with 90 cents a share in 1938.

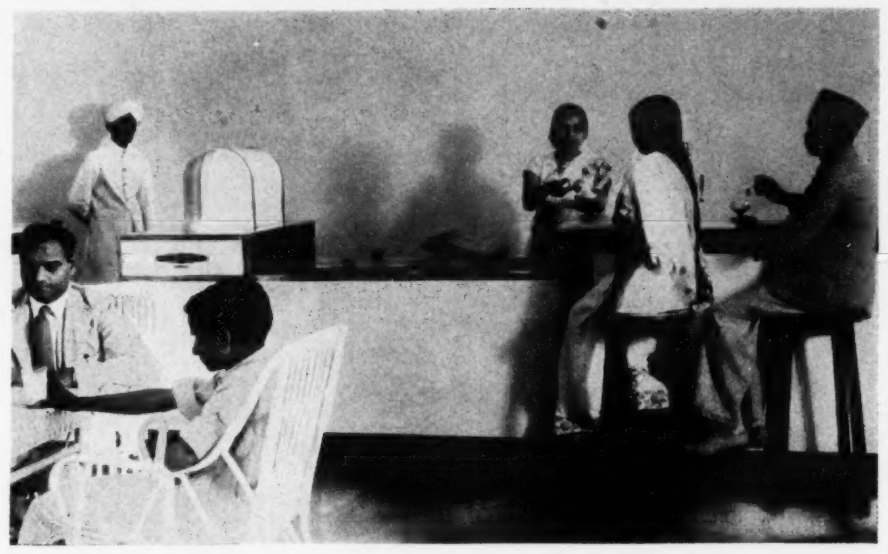
Provision for total 1939 taxes was $21,013,000, compared with $15,632,000 a year earlier, an increase of 34%.

Amount at which the company's total investments were valued on Dec. 31, 1939, before deducting the reserve for investments, was $164,829,000, compared with $166,509,000 a year earlier. After deducting the reserve of $24,267,000, total investments were carried at a net value of $140,561,000, compared with $141,528,000 on Dec. 31, 1938.

Capital expenditures for plant and equipment during 1939 amounted to $11,024,000, compared with $12,000,000 during 1938.

General reserve amounted to $19,811,000, compared with $19,780,000 a year earlier. Earned surplus at the close of the year was $124,310,000, compared with $122,671,000 at the end of 1938. On Dec. 31, 1939, there were 209,914 stockholders.

Why Market For Refrigeration Grows



Ice cream seems to be a number one favorite in almost every country in the world. This view of the Lakeview Milk Bar at Bangalore, India shows a Mills freezer which has been installed there. All classes in India are said to favor ice cream, from the native to the fashionable. A variety of local costumes are shown and all the patrons, including the pigtailed, sandaled native girl at the counter, seem to be enjoying the frozen delicacy. The turbaned fellow in the left background may be the local variety of bouncer.

Montgomery Branch For Alabama Fixture Co.

BIRMINGHAM, Ala. — Alabama Fixture Co., distributor for Viking commercial refrigerators, Curtis refrigeration equipment, and other products, has opened a branch store at 507 Bibb St., Montgomery, Ala. J. B. Rayfield is branch manager.

Patman Chain Store Bill To Get Hearing Soon By House Committee

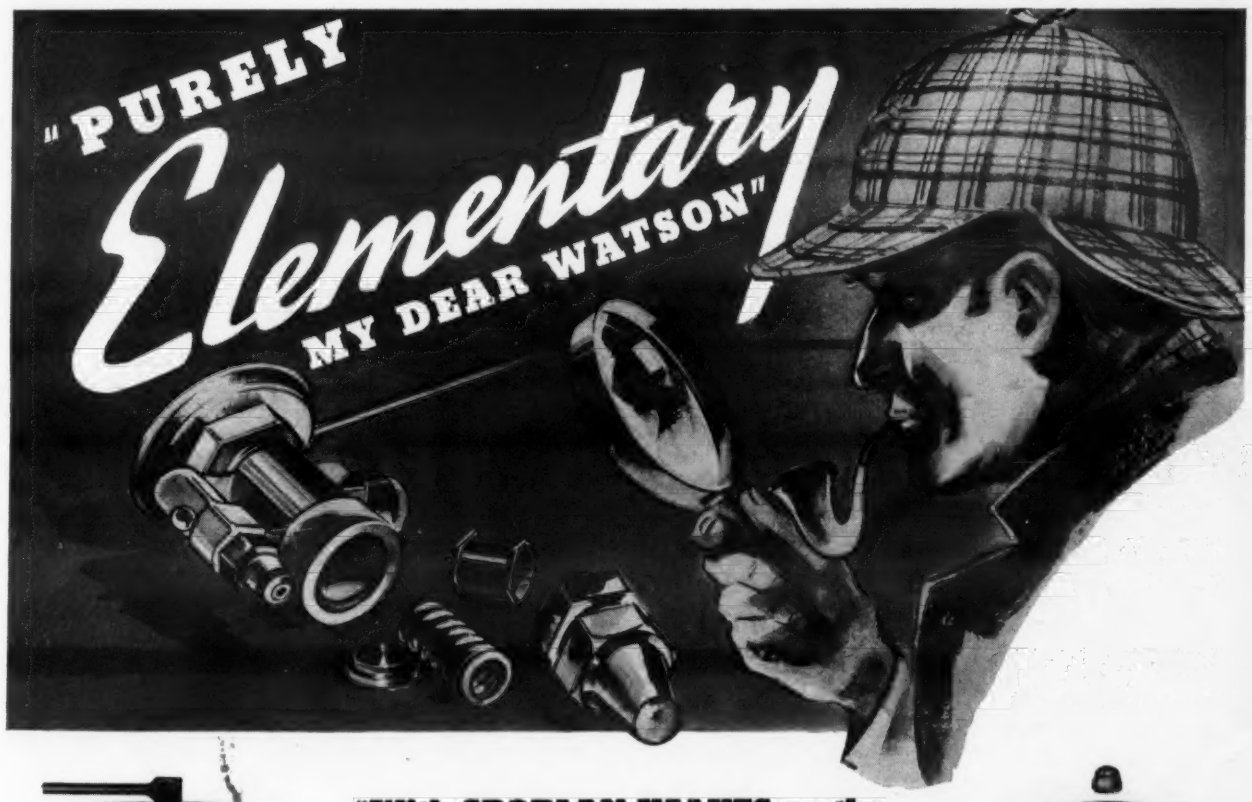
WASHINGTON, D. C.—The Patman chain store bill, pigeon-holed for more than a year by the Ways and Means committee of the House of Representatives, will be given a hearing March 27. Neutral observers, however, consider it unlikely that the bill will reach the House floor this session.

Representative Wright Patman, sponsor of the measure, believes the bill not only will be reported out, but will pass the House this session. Apparently he is banking on considerable pressure upon congressmen in the form of letters and telegrams from independent business men when the bill is brought up for hearing.

The hearing will be held before a special sub-committee headed by Rep. John W. McCormack of Massachusetts. The committee is regarded as antagonistic to the measure.

Only one major change has been made in the original draft of the bill. Formerly it exempted all gasoline stations not engaged in selling tires. This provision has been removed, so that all chain service stations now are classified as chain stores.

The bill provides for an excise tax on all chain retail stores over 10, ranging in graduation from $50 for each store in excess of 10 to $1,000 for each unit in excess of 500. This tax is multiplied by the number of states in which a chain operates. It is aimed at the inter-state chains.



"With SPORLAN VALVES on the Job You Can Easily Detect Moisture or Foreign Matter which so Frequently Causes Rrefrigerating System Failures"

All Sporlan Thermostatic Expansion Valves and Sporlan Solenoid Valves can readily be taken apart with an ordinary wrench and without unsoldering any joints for inspection, drying and cleaning.

Think what this means to Service Men, Contractors, Dealers and Manufacturers in eliminating extra service calls due to incorrect diagnosis of system failures. In a few minutes spent right on the job, the true reason for failure can be ascertained and in a majority of cases, the cause of the failure can be eliminated and the system put back in operation almost immediately with positive assurance that no call backs will be necessary.

Accessibility of parts is another important *money-saving reason* why you should insist on Sporlan Valves. In addition, Sporlan Valves give you peak performance on all installations.

Sporlan Thermostatic Expansion Valves are easily taken apart for inspection, cleaning and drying... no special wrenches needed ... no joints to be unsoldered.

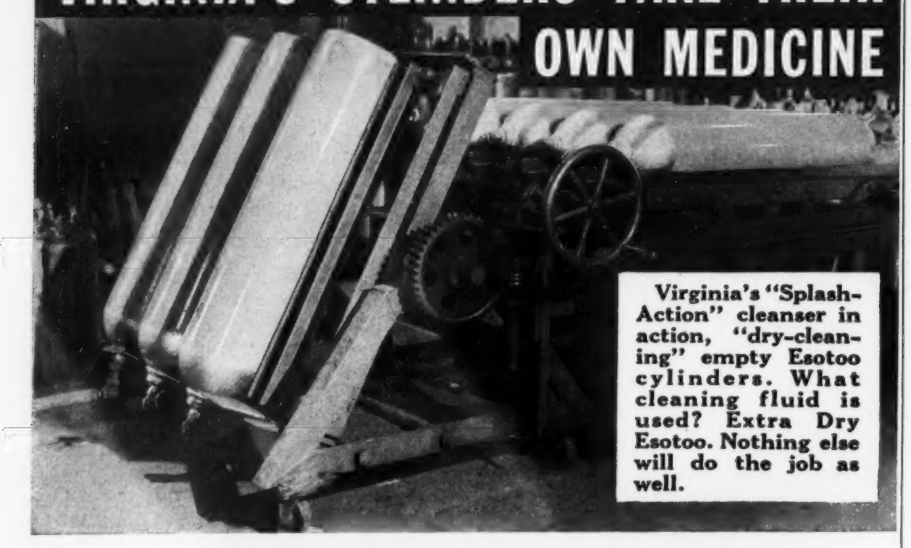
Sporlan Solenoid Valves can be taken apart for inspection and cleaning with an ordinary wrench without breaking any soldered joints.

You can install Sporlan Valves with confidence

SPOEHRER-LANGE COMPANY

3725 COMMONWEALTH AVENUE . . . SAINT LOUIS, MISSOURI

VIRGINIA'S CYLINDERS TAKE THEIR OWN MEDICINE

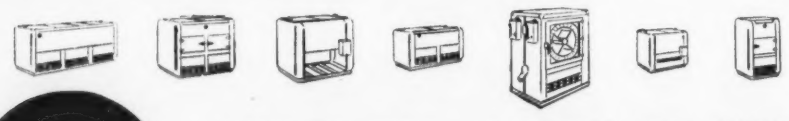


Virginia's "Splash-Action" cleanser in action, "dry-cleaning" empty Esotoo cylinders. What cleaning fluid is used? Extra Dry Esotoo. Nothing else will do the job as well.

High-speed cleaning of empty cylinders at the Virginia Smelting Co. Plant cuts time between receipt and recharge by speeding their routing through the Plant and simplifying storage problems. The method we use cuts the percentage of cylinders rejected in final inspection—all adding up to smoother Plant operations and better service to you.

EXTRA DRY ESOTOO — V-METH-L
METHYLENE CHLORIDE

VIRGINIA SMELTING COMPANY
Located at tidewater, Hampton Roads
West Norfolk, Virginia



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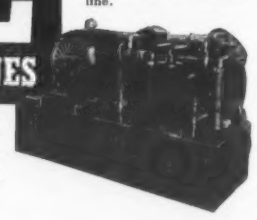
COMMERCIAL REFRIGERATING MACHINES



Servel's 4-cylinder 20 HP machine unit . . . one of 56 models in the complete line.

Whether your requirements are large or small, standard or special, Servel engineers can help you solve your most vexing problems of commercial refrigeration or air conditioning. Write today to Servel, Inc., Electric Refrigeration and Air Conditioning Division, Evansville, Ind.

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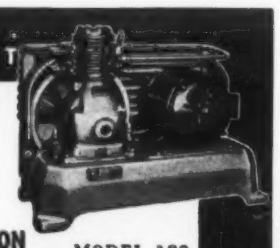
FINEST NAME IN AIR CONDITIONING
MOST VALUABLE FRANCHISE
in *PACKAGED* AIR CONDITIONING
Pleasantaire Corporation, Tower Bldg., Washington, D. C.

You Supply the APPLICATION . . .
Let Us Supply the EQUIPMENT



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GENERAL REFRIGERATION CORPORATION
Dept. AC-1 Beloit, Wis., U. S. A.

MODEL 153
Water-cooled

5-Year Export Table of Refrigeration Products

Household Refrigerators - - Commercial Units (To 1 Ton) - - Refrigerator Parts

Commercial figures are for commercial refrigerators up to 1 ton.

(a) For statistical purposes, trade with Austria beginning May 6, 1938, and that with the Sudeten area, as far as ascertainable, beginning Nov. 10, 1938, are included with Germany, while trade with the other Czech-Slovak provinces occupied by Germany, Hungary and Poland has been included with these countries since March 19, 1939. Trade with the Lithuanian territory of Memel has been included with Germany since March 25, 1939.

(b) 1938 and 1939 exports to the Republic of Panama and the Canal Zone given separately.

(c) 1935 exports to Algeria include Tunisia.

* 1939 yearly totals compiled by AIR CONDITIONING & REFRIGERATION NEWS from monthly reports issued by the Bureau of Foreign and Domestic Commerce of the U. S. Department of Commerce. Previous years' totals taken from Department of Commerce data.

Europe

	1935		1936		1937		1938		1939*		1935-1939	
	Quan.	Value	Quan.	Value	Quan.	Value	Quan.	Value	Quan.	Value	Quan.	Value
Austria (a)												
Household	345	$ 24,849	419	$ 30,662	422	$ 29,875	16	$ 1,020	...	$ ...	1,202	$ 86,406
Commercial	120	11,893	106	7,039	61	3,274	...	...	...	...	287	22,206
Parts	...	14,759	...	28,371	...	14,600	...	2,292	...	...	...	60,022
Azores and Madeira Islands												
Household	11	1,058	15	1,421	16	1,366	60	5,243	18	1,517	120	10,605
Commercial	2	856	...	...	2	584	...	...	1	147	5	1,587
Parts	...	186	...	28	...	511	...	280	...	288	...	1,293
Belgium												
Household	1,880	156,081	2,435	179,839	3,124	215,499	2,836	209,157	1,918	139,891	12,193	900,467
Commercial	1,112	93,974	880	71,638	1,267	89,979	1,106	79,587	974	63,995	5,339	399,173
Parts	...	104,534	...	102,765	...	127,860	...	99,240	...	103,234	...	537,633
Bulgaria												
Household	13	954	10	889	61	5,150	67	6,391	108	11,251	259	24,635
Commercial	...	...	...	...	25	4,341	31	2,904	86	5,560	142	12,805
Parts	...	2,072	...	1,193	...	1,849	...	2,616	...	3,628	...	11,358
Czechoslovakia (a)												
Household	172	12,566	721	34,622	200	8,110	620	25,295	107	3,896	1,820	84,489
Commercial	10	2,629	30	4,175	7	1,271	...	...	3	286	50	8,361
Parts	...	48,434	...	80,771	...	59,288	...	55,176	...	11,960	...	255,629
Denmark												
Household	5	437	6	768	7	656	74	5,852	166	11,415	258	19,128
Commercial	61	7,288	7	1,416	65	3,016	9	712	2	295	144	12,727
Parts	...	21,681	...	23,610	...	20,409	...	37,218	...	38,034	...	140,952
Estonia												
Household	...	...	1	146	2	163	...	...	...	...	3	309
Commercial	...	...	...	...	...	...	...	...	...	...	...	...
Parts	...	85	...	...	...	...	...	75	...	178	...	338
Finland												
Household	176	12,931	253	20,657	294	22,848	435	32,397	381	27,517	1,539	116,350
Commercial	147	16,233	137	13,817	245	21,414	284	21,230	255	19,464	1,068	92,158
Parts	...	24,329	...	35,106	...	43,419	...	77,344	...	94,175	...	274,373
France												
Household	11,045	785,737	8,664	581,001	11,893	749,699	8,882	533,234	5,215	338,880	45,699	2,988,551
Commercial	2,754	226,765	3,847	265,730	3,478	221,558	2,029	117,790	1,319	71,862	13,427	903,705
Parts	...	376,923	...	481,727	...	549,043	...	392,457	...	189,202	...	1,989,352
Germany												
Household	99	7,352	28	2,737	19	1,650	19	1,964	9	963	174	14,666
Commercial	61	9,248	72	5,852	...	...	3	573	6	1,480	142	17,153
Parts	...	112,817	...	2,810	...	3,915	...	3,026	...	6,654	...	129,222
Gibraltar												
Household	39	3,110	37	3,371	70	5,999	46	3,871	20	1,903	212	18,254
Commercial	12	2,020	3	434	1	148	9	1,570	3	309	28	4,481
Parts	...	1,927	...	814	...	1,511	...	1,104	...	378	...	5,734
Greece												
Household	403	41,044	219	24,182	216	21,887	284	29,514	190	18,066	1,312	134,693
Commercial	33	4,920	177	20,801	212	29,562	105	9,271	22	1,769	549	66,323
Parts	...	8,444	...	13,209	...	13,609	...	25,156	...	4,280	...	64,698
Hungary												
Household	14	1,048	4	621	32	3,535	2	257	...	...	52	5,461
Commercial	20	1,268	...	...	4	442	...	...	...	...	24	1,710
Parts	...	531	...	441	...	378	...	315	...	...	...	1,665
Iceland												
Household	...	...	...	...	1	64	1	193	1	69	3	326
Commercial	...	...	...	...	...	...	...	...	...	...	...	...
Parts	...	...	...	...	...	10	...	...	...	...	...	10
Irish Free State												
Household	364	30,107	715	62,604	484	54,179	575	47,647	180	11,808	2,318	206,345
Commercial	327	29,956	263	17,935	256	20,589	138	11,328	10	1,168	984	80,976
Parts	...	5,775	...	5,357	...	5,187	...	14,129	...	7,243	...	37,691
Italy												
Household	944	79,965	1,013	79,361	992	85,311	892	81,248	108	9,792	3,949	335,677
Commercial	489	42,488	36	6,482	200	16,983	76	9,313	4	298	805	75,564
Parts	...	79,689	...	24,726	...	36,696	...	39,041	...	25,282	...	205,434
Latvia												
Household	2	352	10	726	...	...	...	...	...	...	12	1,078
Commercial	...	...	...	...	...	...	...	...	...	...	...	...
Parts	...	67	...	38	...	...	...	...	...	...	...	105
Lithuania (a)												
Household	1	102	17	1,625	45	4,469	50	4,580	34	3,550	147	14,326
Commercial	...	...	...	...	...	...	...	...	...	...	...	...
Parts	...	...	...	...	...	4	...	139	...	86	...	229
Malta, Gozo, and Cyprus												
Household	10	863	15	1,409	80	6,110	94	8,601	69	6,652	268	23,635
Commercial	2	198	3	172	...	...	...	...	3	838	8	1,208
Parts	...	177	...	583	...	771	...	1,525	...	2,715	...	5,771
Netherlands												
Household	2,067	145,204	2,419	177,246	1,847	135,052	3,567	223,830	1,264	90,959	11,164	772,291
Commercial	535	51,432	908	79,244	592	50,012	385	36,461	253	28,253	2,673	245,402
Parts	...	92,200	...	97,985	...	74,867	...	56,241	...	84,519	...	405,812
Norway												
Household	909	71,696	1,575	117,987	2,597	205,363	1,902	156,987	1,993	152,236	8,976	704,269
Commercial	267	32,434	202	22,811	248	32,499	351	40,208	577	58,870	1,645	186,822
Parts	...	39,014	...	47,774	...	73,727	...	66,077	...	91,181	...	317,773
Poland and Danzig												
Household	25	1,753	15	1,086	4	288	13	1,463	4	359	61	4,949
Commercial	4	620	3	271	2	707	3	249	1	1,065	13	2,912
Parts	...	1,381	...	840	...	325	...	11	...	159	...	2,716
Portugal												
Household	238	19,812	216	18,639	427	36,867	423	36,597	401	34,490	1,705	146,405
Commercial	50	7,424	27	3,658	88	12,750	69	8,919	59	5,804	293	38,555
Parts	...	7,528	...	5,370	...	9,559	...	15,756	...	20,515	...	58,728
Rumania												
Household	91	10,834	153	11,722	580	47,051	202	18,609	184	16,482	1,210	104,698
Commercial	5	485	1	66	5	3,550	1	242	...	...	12	4,343
Parts	...	10,587	...	8,135	...	10,008	...	10,667	...	2,616	...	42,013
U.S.S.R. (Russia)												
Household	37	4,476	142	20,739	200	18,966	126	14,945	72	6,623	577	65,749
Commercial	1	390	1	237	22	3,680	113	16,197	5	1,110	142	21,614
Parts	...	1,232	...	86,371	...	90,230	...	9,647	...	6,172	...	193,652
Spain												
Household	2,162	173,764	2,024	157,727	7	761	2	110	14	1,623	4,209	333,985
Commercial	739	81,544	532	59,061	...	...	...	...	...	...	1,271	140,605
Parts	...	79,167	...	51,831	...	140	...	296	...	3,006	...	134,440
Sweden												
Household	2,481	182,894	2,304	167,952	4,141	267,314	4,300	295,053	7,877	447,308	21,103	1,360,521
Commercial	691	69,038	482	49,421	837	63,797	1,043	93,233	1,253	100,772	4,306	376,261
Parts	...	120,897	...	133,060	...	250,366	...	338,997	...	534,705	...	1,378,025
Switzerland												
Household	675	45,554	969	74,799	964	78,197	756	55,060	1,108	74,910	1,108	328,520
Commercial	11	1,973	15	1,274	11	369	22	3,166	23	2,197	82	8,979
Parts	...	121,339	...	54,359	...	57,398	...	46,537	...	78,865	...	358,498
Albania												
Household	1	99	9	782	3	329	22	1,901	1	75	36	3,186
Commercial	...	...	...	...	...	...	5	857	...	...	5	857
Parts	...	...	...	...	...	...	...	148	...	...	...	148
United Kingdom												
Household	12,830	896,728	33,966	2,056,411	13,514	790,180	13,703	689,242	7,272	407,032	81,285	4,839,593
Commercial	5,939	359,577	6,230	396,029	10,765	557,820	1,652	155,152	1,549	111,431	26,135	1,580,009
Parts	...	593,988	...	1,317,629	...	928,012	...	703,655	...	659,478	...	4,202,762
Yugoslavia												
Household	77	6,830	47	3,707	82	5,329	25	1,924	...	...	231	17,790
Commercial	49	6,748	57	7,886	...	...	...	...	...	...	106	14,634
Parts	...	3,058	...	3,955	...	467	...	80	...	128	...	7,688

Australia and South Seas

	1935		1936		1937		1938		1939*		1935-1939	
	Quan.	Value	Quan.	Value	Quan.	Value	Quan.	Value	Quan.	Value	Quan.	Value
Australia												
Household	5,738	353,152	2,626	164,907	332	23,842	3,415	251,505	5,914	378,409	18,025	1,171,815
Commercial	129	11,503	59	3,762	29	3,495	616	47,464	154	11,540	987	77,764
Parts	...	261,499	...	120,675	...	39,629	...	110,728	...	209,797	...	742,328
British Oceania												
Household	10	1,132	32	3,508	93	8,275	64	6,179	42	3,703	241	22,797
Commercial	...	...	2	452	9	1,341	1	113	1	103	13	2,009
Parts	...	75	...	1,671	...	528	...	1,142	...	1,207	...	4,623
French Oceania												
Household	48	4,504	25	2,253	38	3,270	38	2,740	25	1,891	174	14,658
Commercial	2	1,301	3	345	1	78	...	...	2	723	8	2,447
Parts	...	857	...	378	...	687	...	934	...	169	...	3,025
New Zealand												
Household	3,922	318,217	2,156	173,388	2,860	224,478	6,518	519,296	2,712	178,638	18,168	1,414,017
Commercial	433	46,883	641	70,264	927	72,736	1,083	82,548	368	24,841	3,452	297,272
Parts	...	43,347	...	40,237	...	85,544	...	83,256	...	58,007	...	310,391

South America

	1935		1936		1937		1938		1939*		1935-1939	
	Quan.	Value	Quan.	Value	Quan.	Value	Quan.	Value	Quan.	Value	Quan.	Value
Argentina												
Household	3,789	189,890	4,242	216,719	5,020	254,985	5,689	358,022	2,382	137,087	21,122	1,156,703
Commercial	714	61,581	499	39,975	1,684	138,229	1,315	95,314	645	54,102	4,857	389,201
Parts	...	142,698	...	276,183	...	508,989	...	424,355	...	651,273	...	2,003,498
Bolivia												
Household	28	2,961	98	8,931	181	16,728	152	13,601	143	12,711	602	54,932
Commercial	1	232	1	228	...	...	1	69	3	527	6	1,056
Parts	...	288	...	389	...	143	...	4,700	...	690	...	6,210
Brazil												
Household	9,212	691,191	11,520	893,885	12,291	994,741	12,042	955,026	10,927	888,881	55,992	4,423,724
Commercial	700	82,910	1,591	165,615	1,280	105,854	1,643	153,522	1,266	105,232	6,480	613,133
Parts	...	129,782	...	131,254	...	134,380	...	122,673	...	108,508	...	626,597
Chile												
Household	743	60,877	628	49,165	748	68,046	964	89,112	1,131	99,314	4,214	366,514
Commercial	96	13,099	47	4,014	211	20,247	73	7,513	78	8,399	505	53,272
Parts	...	3,944	...	9,111	...	12,455	...	17,048	...	46,499	...	89,057
Colombia												
Household	1,438	124,574	2,394	213,081	3,250	306,595	2,245	235,977	4,032	392,283	13,359	1,272,510
Commercial	78	14,409	220	26,165	212	31,595	265	48,885	446	87,829	1,221	208,883
Parts	...	10,001	...	16,383	...	27,122	...	24,756	...	37,396	...	115,658
Ecuador												
Household	169	14,497	228	20,279	226	19,999	181	14,839	233	19,908	1,037	89,522
Commercial	2	259	3	738	13	1,333	2	311	4	806	24	3,447
Parts	...	830	...	1,044	...	1,129	...	880	...	2,128	...	6,011
British Guiana												
Household	103	8,018	123	9,426	207	14,175	224	18,456	150	15,151	807	65,226
Commercial	...	...	1	89	2	376	5	707	22	2,769	30	3,941
Parts	...	1,052	...	518	...	658	...	1,956	...	2,692	...	6,876
Surinam												
Household	46	4,629	49	4,444	10	716	52	4,730	68	6,451	225	20,970
Commercial	...	...	1	28	1	311	...	...	...	...	2	339
Parts	...	426	...	463	...	202	...	379	...	438	...	1,908
French Guiana												
Household	...	...	...	...	...	...	...	...	1	167	1	167
Parts	...	...	...	111	...	...	...	97	...	...	...	208
Paraguay												
Household	39	3,386	128	11,463	228	20,691	443	42,641	246	21,906	1,084	100,087
Commercial	...	...	...	...	16	3,670	11	2,521	17	1,205	44	7,396
Parts	...	125	...	439	...	1,116	...	2,023	...	2,302	...	6,005
Peru												
Household	680	67,741	886	76,258	983	86,784	839	70,804	1,071	87,941	4,459	389,528
Commercial	48	6,412	74	11,764	99	12,322	11	3,064	24	4,861	256	38,423
Parts	...	7,870	...	13,403	...	16,144	...	14,447	...	9,562	...	61,426
Uruguay												
Household	239	19,206	979	74,302	1,620	143,626	318	21,007	650	40,959	3,806	299,100
Commercial	148	14,511	223	19,981	317	35,742	62	6,693	181	12,445	931	89,372
Parts	...	16,403	...	25,132	...	38,721	...	21,265	...	28,939	...	130,460
Venezuela												
Household	1,491	134,949	2,253	185,688	4,325	407,887	3,944	369,622	4,737	429,441	16,750	1,527,587
Commercial	37	6,436	137	18,324	292	57,452	283	56,801	718	90,288	1,467	229,301
Parts	...	7,574	...	11,325	...	20,919	...	37,555	...	33,437	...	110,810

North America

	1935		1936		1937		1938		1939*		1935-1939	
	Quan.	Value	Quan.	Value	Quan.	Value	Quan.	Value	Quan.	Value	Quan.	Value
Canada												
Household	4,466	242,756	13,698	679,387	14,071	1,043,959	10,820	677,100	11,848	709,567	54,903	3,352,769
Commercial	847	103,331	1,306	115,804	1,825	199,646	1,391	158,423	1,561	199,241	6,930	776,445
Parts	...	500,097	...	938,962	...	1,152,795	...	1,448,111	...	1,977,427	...	6,017,392
British Honduras												
Household	32	2,851	19	1,716	30	1,174	85	7,992	70	7,275	236	21,008
Commercial	...	...	...	...	...	...	...	...	1	663	1	663
Parts	...	618	...	383	...	327	...	60	...	90	...	1,478
Costa Rica												
Household	85	8,331	356	22,963	538	51,668	351	34,305	376	41,513	1,706	158,780
Commercial	...	...	17	3,954	24	6,471	30	3,871	28	4,918	99	19,214
Parts	...	582	...	1,848	...	4,546	...	9,140	...	9,018	...	25,134
Guatemala												
Household	132	13,014	236	18,902	438	40,376	329	32,225	435	42,658	1,570	147,175
Commercial	3	492	9	957	34	7,060	34	9,248	96	16,946	176	34,703
Parts	...	2,417	...	1,300	...	4,633	...	5,293	...	3,103	...	16,746
Honduras												
Household	152	15,463	173	15,622	152	16,223	159	15,304	143	12,427	779	75,039
Commercial	22	5,275	4	1,327	4	947	7	1,616	9	3,073	46	12,238
Parts	...	5,009	...	1,534	...	3,147	...	1,139	...	2,351	...	13,180
Nicaragua												
Household	19	1,554	57	6,667	73	6,977	65	6,560	152	16,353	366	38,111
Commercial	5	1,371	2	493	8	898	3	814	16	3,161	34	6,737
Parts	...	1,025	...	413	...	766	...	278	...	1,115	...	3,597
Panama (b)												
Household	914	86,512	1,093	123,035	1,233	140,946	522	47,185	647	55,207	4,409	452,885
Commercial	114	20,566	137	26,240	168	31,441	79	15,896	62	10,824	560	104,967
Parts	...	40,639	...	25,266	...	37,925	...	17,767	...	14,139	...	135,736
Panama Canal Zone												
Household	...	...	...	...	...	...	458	55,554	552	68,130	1,010	123,684
Commercial	...	...	...	...	...	...	126	17,097	84	18,575	210	35,672
Parts	...	...	...	...	...	...	...	17,904	...	24,020	...	41,924
Salvador												
Household	65	5,723	150	15,491	398	39,645	265	27,787	215	18,776	1,093	107,422
Commercial	20	3,209	13	1,816	34	7,155	41	9,561	45	7,806	153	29,547
Parts	...	1,185	...	1,501	...	3,253	...	3,841	...	4,913	...	14,693
Mexico												
Household	3,447	308,227	4,935	414,648	7,325	588,714	1,926	158,069	4,835	419,146	22,468	1,888,804
Commercial	195	32,754	360	51,066	492	75,337	428	54,973	386	58,348	1,861	272,478
Parts	...	72,258	...	74,131	...	69,512	...	57,117	...	62,806	...	335,824
Newfoundland and Labrador												
Household	66	6,015	105	10,148	265	22,158	224	20,372	187	17,396	847	76,089
Commercial	5	995	8	2,045	24	3,686	26	3,752	33	4,367	96	14,845
Parts	...	366	...	1,390	...	1,905	...	2,623	...	2,431	...	8,715
Bermuda												
Household	366	35,370	523	46,515	567	54,946	477	40,014	484	43,983	2,417	220,828
Commercial	19	4,246	53	9,698	89	19,096	85	10,108	46	6,498	292	49,646
Parts	...	4,712	...	8,958	...	15,410	...	8,407	...	7,541	...	45,028
Barbados												
Household	120	9,851	147	11,932	256	20,375	218	20,277	206	17,609	947	80,044
Commercial	2	686	...	...	13	1,935	17	1,653	4	602	36	4,876
Parts	...	789	...	2,315	...	3,662	...	2,220	...	667	...	9,633
Jamaica												
Household	109	13,415	148	15,015	179	17,826	199	19,441	226	18,657	861	84,354
Commercial	7	1,185	8	1,579	42	8,118	34	6,715	21	3,264	112	20,861
Parts	...	3,575	...	1,371	...	6,238	...	6,461	...	5,333	...	22,978
Trinidad and Tobago												
Household	261	24,171	357	34,206	555	50,610	558	50,581	358	32,645	2,089	192,213
Commercial	11	1,317	27	3,159	29	4,867	80	11,926	84	12,029	231	33,298
Parts	...	1,653	...	3,245	...	3,962	...	6,678	...	5,746	...	21,284
Other British West Indies												
Household	130	12,418	190	18,187	208	20,396	236	22,345	146	14,956	910	88,302
Commercial	9	4,541	27	3,680	14	2,027	38	5,462	37	3,649	125	19,359
Parts	...	2,288	...	4,569	...	4,680	...	4,954	...	4,242	...	20,733
Cuba												
Household	2,060	194,692	3,982	354,432	6,842	552,290	4,908	409,308	5,423	474,552	23,215	1,985,274
Commercial	342	47,333	513	69,661	706	74,746	880	93,268	788	103,948	3,229	388,956
Parts	...	74,736	...	91,707	...	119,918	...	106,097	...	123,318	...	515,776
Dominican Republic												
Household	193	18,224	267	24,246	414	36,342	248	23,752	323	29,963	1,445	132,527
Commercial	8	1,186	11	2,115	32	7,303	15	3,161	17	3,359	83	17,124
Parts	...	1,509	...	2,179	...	2,563	...	2,020	...	3,194	...	11,465
Netherlands West Indies												
Household	651	61,887	934	88,259	916	88,765	799	87,914	859	91,095	4,159	417,920
Commercial	50	7,968	82	9,945	75	9,857	144	19,188	117	22,726	468	69,684
Parts	...	14,095	...	10,811	...	10,379	...	12,435	...	14,558	...	62,278
French West Indies												
Household	164	15,858	148	12,508	118	10,087	70	5,748	115	9,210	615	53,411
Commercial	8	918	8	663	5	520	1	250	1	227	23	2,578
Parts	...	1,096	...	775	...	567	...	624	...	849	...	3,911
Haiti, Republic of												
Household	233	22,844	128	11,115	117	9,415	162	15,093	174	15,711	814	74,178
Commercial	8	1,610	3	424	13	1,454	1	227	5	1,647	30	5,362
Parts	...	1,685	...	4,527	...	689	...	838	...	1,039	...	8,778

U. S. Possessions

	1935		1936		1937		1938		1939*		1935-1939	
	Quan.	Value	Quan.	Value	Quan.	Value	Quan.	Value	Quan.	Value	Quan.	Value
Alaska												
Household	...	...	...	...	...	...	...	...	310	34,831	310	34,831
Commercial	...	...	...	...	...	...	...	...	51	7,679	51	7,679
Parts	...	...	...	...	...	...	...	...	...	4,567	...	4,567
Hawaii												
Household	5,801	579,264	5,265	521,672	7,899	749,303	6,274	626,141	6,767	684,420	32,006	3,160,800
Commercial	427	57,878	225	35,093	546	95,458	737	123,711	871	135,942	2,806	448,082
Parts	...	74,387	...	69,219	...	73,748	...	62,389	...	90,130	...	369,873
Puerto Rico												
Household	3,223	329,850	3,767	368,756	3,841	357,853	2,477	233,821	2,961	274,349	16,269	1,564,629
Commercial	219	36,881	299	44,865	628	94,696	457	69,672	784	108,143	2,387	354,257
Parts	...	44,263	...	36,906	...	46,891	...	32,705	...	50,267	...	211,032
Virgin Islands												
Household	...	...	46	4,599	34	3,729	50	6,684	77	7,847	207	22,859
Commercial	...	...	7	1,493	13	2,804	4	1,372	9	1,831	33	7,500
Parts	...	...	...	1,463	...	1,309	...	1,602	...	2,955	...	7,329

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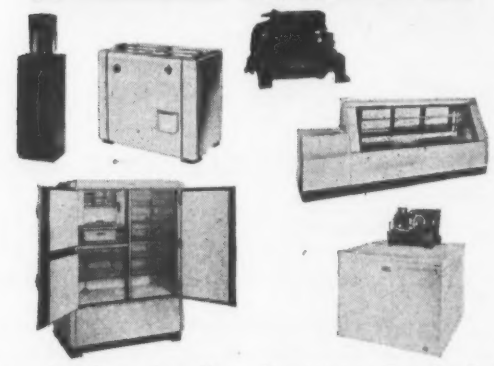

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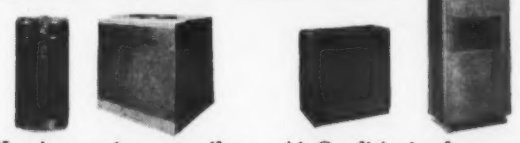

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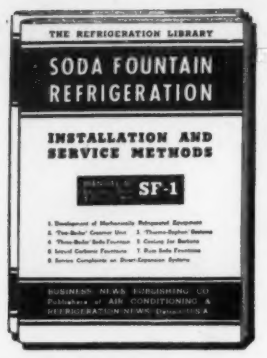

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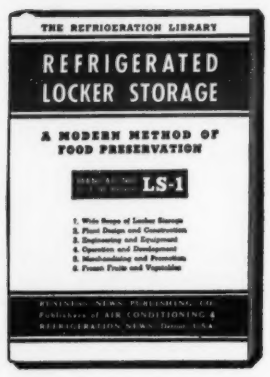

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Africa

	1935 Quan.	1935 Value	1936 Quan.	1936 Value	1937 Quan.	1937 Value	1938 Quan.	1938 Value	1939* Quan.	1939* Value	1935-1939 Quan.	1935-1939 Value
Ethiopia												
Household	1	122	3	277	...	...	...	...	...	...	4	399
Commercial	...	...	...	...	...	...	...	...	...	...	...	...
Parts	...	...	...	...	...	...	...	...	...	...	...	...
Belgian Congo												
Household	204	21,445	141	14,963	433	32,914	250	27,839	531	56,876	1,559	154,037
Commercial	5	621	2	132	8	494	1	129	2	256	18	1,632
Parts	...	1,559	...	4,272	...	3,015	...	2,959	...	3,550	...	15,355
British East Africa												
Household	197	19,124	278	24,769	427	35,873	402	37,225	436	39,596	1,740	156,587
Commercial	4	595	8	1,109	22	2,071	25	4,644	17	2,194	76	10,613
Parts	...	4,634	...	5,269	...	4,815	...	8,356	...	8,330	...	31,404
Union of South Africa												
Household	18,388	1,528,258	22,244	1,840,819	31,005	2,341,984	20,289	1,707,163	12,016	986,372	103,942	8,404,596
Commercial	773	79,919	1,572	168,370	1,303	110,361	956	103,632	818	94,818	5,422	557,100
Parts	...	252,220	...	306,652	...	263,594	...	290,481	...	220,429	...	1,333,376
Other British South Africa												
Household	153	12,499	291	25,043	520	37,844	436	38,070	309	26,563	1,709	140,019
Commercial	1	263	9	355	15	1,915	29	3,576	6	848	60	6,957
Parts	...	3,975	...	1,437	...	4,753	...	5,688	...	1,656	...	17,509
Gold Coast												
Household	206	17,476	229	19,814	244	22,644	205	20,285	154	15,191	1,038	95,410
Commercial	2	106	8	749	3	410	6	856	2	173	21	2,294
Parts	...	2,374	...	3,643	...	3,864	...	3,213	...	2,831	...	15,925
Nigeria												
Household	98	10,592	103	9,615	177	15,415	257	25,332	165	17,200	800	78,154
Commercial	...	...	...	...	...	...	2	346	2	501	4	847
Parts	...	1,756	...	1,892	...	1,321	...	3,583	...	4,868	...	13,420
Other British West Africa												
Household	9	1,101	31	3,023	20	2,198	33	3,412	39	3,732	132	13,466
Commercial	1	136	11	1,371	...	...	...	...	...	...	12	1,507
Parts	...	748	...	471	...	288	...	477	...	376	...	2,360
Egypt												
Household	645	56,685	630	59,149	901	78,562	483	45,702	476	43,219	3,135	283,317
Commercial	81	10,912	89	11,978	115	13,728	113	15,701	73	8,803	471	61,122
Parts	...	11,704	...	13,767	...	25,608	...	19,729	...	17,706	...	88,514
Algeria (c)												
Household	2,268	172,756	994	76,626	1,396	101,306	1,155	90,019	885	69,346	6,698	510,053
Commercial	237	24,749	161	15,853	160	14,168	200	16,996	103	9,176	861	80,942
Parts	...	31,397	...	12,458	...	19,179	...	23,352	...	8,472	...	94,858
Tunisia												
Household	...	...	1,292	100,980	1,107	81,779	693	51,931	212	16,558	3,304	251,248
Commercial	...	...	178	22,401	111	11,154	78	5,911	14	1,666	381	41,132
Parts	...	...	...	18,595	...	9,197	...	7,172	...	3,411	...	38,375
Madagascar												
Household	83	7,283	98	7,457	52	5,319	43	4,059	60	5,500	336	29,618
Commercial	...	...	2	150	2	236	...	...	...	...	4	386
Parts	...	478	...	560	...	435	...	506	...	186	...	2,165
Other French Africa												
Household	448	42,111	468	39,357	386	34,074	172	15,663	196	18,590	1,670	149,795
Commercial	22	2,442	3	424	3	636	3	296	2	418	33	4,216
Parts	...	5,026	...	4,341	...	2,055	...	4,466	...	2,373	...	18,261
Italian Africa												
Household	145	12,836	3	316	5	534	...	...	2	174	155	13,860
Commercial	2	118	2	660	...	...	...	...	...	...	4	778
Parts	...	185	...	95	...	92	...	...	...	...	...	372
Liberia												
Household	6	770	15	1,299	27	1,957	19	2,085	55	5,410	122	11,521
Commercial	...	...	...	...	...	...	...	...	...	...	...	...
Parts	...	111	...	16	...	148	...	34	...	520	...	829
Morocco												
Household	783	59,403	1,329	98,501	1,596	115,395	853	65,710	913	72,154	5,474	411,163
Commercial	27	3,496	49	3,106	32	3,873	32	3,788	10	960	150	15,223
Parts	...	9,548	...	10,411	...	7,189	...	7,834	...	4,384	...	39,366
Mozambique												
Household	444	36,916	639	55,250	1,169	104,750	805	79,177	793	74,513	3,850	350,606
Commercial	21	1,995	56	5,641	39	4,158	35	3,994	30	3,562	181	19,350
Parts	...	5,871	...	7,073	...	8,756	...	8,218	...	5,618	...	35,536
Other Portuguese Africa												
Household	15	1,253	...	...	29	2,727	137	12,885	95	9,769	276	26,634
Commercial	3	344	...	...	5	826	9	949	10	1,522	27	3,641
Parts	...	29	...	25	...	333	...	707	...	1,217	...	2,311
Canary Islands												
Household	239	20,124	97	8,104	12	979	4	440	...	...	352	29,647
Commercial	6	597	11	1,293	...	...	...	...	...	...	17	1,890
Parts	...	3,030	...	419	...	425	...	65	...	3	...	3,942
Other Spanish Africa												
Household	172	12,248	76	5,396	...	...	2	185	...	...	250	17,829
Commercial	1	109	3	364	...	...	4	560	...	...	8	1,033
Parts	...	735	...	64	...	...	...	22	...	106	...	927

Asia

	1935 Quan.	1935 Value	1936 Quan.	1936 Value	1937 Quan.	1937 Value	1938 Quan.	1938 Value	1939* Quan.	1939* Value	1935-1939 Quan.	1935-1939 Value
Aden												
Household	62	5,055	38	3,687	44	5,037	46	5,101	35	2,852	225	21,732
Commercial	2	574	6	874	3	441	7	1,064	...	...	18	2,953
Parts	...	205	...	1,703	...	468	...	585	...	102	...	3,063
Saudi Arabia (b)												
Household	4	1,801	49	4,713	14	1,989	29	3,377	77	7,676	173	19,556
Commercial	...	...	2	1,135	...	...	7	4,509	31	4,471	40	10,115
Parts	...	916	...	1,635	...	1,182	...	1,452	...	1,759	...	6,944
British India												
Household	2,500	227,059	3,228	259,126	2,962	228,618	2,605	216,386	2,469	194,864	13,764	1,126,053
Commercial	399	47,852	427	65,856	287	35,942	155	19,132	206	18,913	1,474	187,695
Parts	...	108,891	...	77,715	...	78,733	...	79,200	...	85,844	...	430,383
British Malaya												
Household	1,409	134,007	1,696	148,826	2,127	186,422	1,538	132,780	1,825	164,850	8,595	766,885
Commercial	58	8,019	131	27,831	173	22,572	169	23,799	122	17,275	653	99,496
Parts	...	17,472	...	20,828	...	27,815	...	23,826	...	30,879	...	120,820
Ceylon												
Household	391	33,204	253	23,232	541	44,688	241	21,906	386	31,223	1,812	154,253
Commercial	19	1,664	1	171	4	374	...	...	...	...	24	2,209
Parts	...	4,903	...	7,541	...	5,147	...	3,902	...	4,306	...	25,799
China												
Household	1,746	158,095	1,155	93,527	2,083	160,239	293	24,010	444	35,794	5,721	471,655
Commercial	142	20,536	62	4,779	50	6,181	22	3,001	95	12,746	371	47,243
Parts	...	27,755	...	13,469	...	18,242	...	5,964	...	11,753	...	77,183
Burma												
Household	...	...	...	...	...	...	123	10,571	138	10,345	261	20,916
Commercial	...	...	...	...	...	...	8	1,944	22	1,503	30	3,447
Parts	...	...	...	...	...	...	...	1,799	...	2,857	...	4,656
Netherlands Indies												
Household	2,692	258,006	1,952	172,446	2,106	174,059	2,307	211,419	3,678	331,615	12,735	1,147,545
Commercial	363	47,093	186	27,889	115	13,639	163	20,162	535	83,268	1,326	192,051
Parts	...	39,875	...	33,142	...	30,353	...	34,493	...	57,018	...	194,881
French Indo-China												
Household	837	81,248	752	67,527	997	82,337	495	40,438	691	60,330	3,772	331,880
Commercial	5	1,510	24	6,712	25	7,658	7	1,225	10	2,192	71	19,297
Parts	...	9,000	...	18,937	...	28,351	...	11,263	...	9,152	...	76,703
Hong Kong												
Household	630	57,509	359	37,761	560	44,901	673	53,405	1,085	92,519	3,307	286,095
Commercial	42	8,749	23	2,420	38	5,286	31	7,166	71	12,111	205	35,732
Parts	...	9,416	...	6,183	...	7,231	...	5,148	...	9,878	...	37,856
Iraq												
Household	2	200	155	16,487	148	11,517	198	17,115	179	15,314	682	60,633
Commercial	...	...	7	967	5	1,510	32	5,447	27	4,371	71	12,295
Parts	...	117	...	633	...	646	...	4,453	...	2,533	...	8,382
Japan												
Household	214	21,745	231	25,148	271	25,277	43	3,482	25	2,950	784	78,602
Commercial	107	14,740	168	22,251	176	25,396	...	...	3	801	454	63,188
Parts	...	49,685	...	53,693	...	77,996	...	4,135	...	29,767	...	215,276
Kwantung												
Household	204	14,985	48	4,519	100	7,490	20	1,714	2	190	374	28,898
Commercial	16	2,711	...	...	39	5,465	4	719	1	250	60	9,145
Parts	...	1,902	...	170	...	3,502	...	875	...	1,875	...	8,324
Palestine												
Household	3,196	242,652	3,062	242,839	1,801	128,012	989	79,352	1,048	79,903	10,096	772,758
Commercial	607	73,760	428	49,396	122	18,405	43	5,753	92	11,113	1,292	158,427
Parts	...	89,632	...	49,817	...	22,472	...	20,386	...	16,813	...	199,120
Iran												
Household	4	510	4	285	13	1,250	62	2,984	26	2,814	109	7,483
Commercial	1	126	...	...	2	188	74	11,184	168	7,369	245	18,867
Parts	...	978	...	...	...	32	...	3,462	...	5,854	...	10,326
Philippine Islands												
Household	1,145	118,720	2,068	197,187	1,598	140,921	1,927	208,152	1,842	181,418	8,580	846,398
Commercial	149	24,626	169	31,777	211	30,602	226	40,061	402	58,682	1,157	185,748
Parts	...	28,423	...	35,648	...	29,152	...	34,310	...	43,468	...	171,001
Thailand												
Household	...	...	...	...	...	...	...	...	170	14,466	170	14,466
Commercial	...	...	...	...	...	...	...	...	8	951	8	951
Parts	...	...	...	...	...	...	...	...	...	596	...	596
Siam												
Household	113	9,877	256	19,511	362	28,537	340	28,058	310	25,941	1,381	111,924
Commercial	4	1,847	...	...	9	927	11	1,334	...	...	24	4,108
Parts	...	417	...	588	...	1,056	...	528	...	480	...	3,069
Syria												
Household	164	13,896	354	29,447	325	25,945	234	28,293	188	18,046	1,265	115,627
Commercial	37	8,033	64	10,581	73	11,068	43	6,466	37	5,914	254	42,062
Parts	...	4,142	...	6,742	...	2,145	...	3,108	...	3,085	...	19,222
Turkey												
Household	1,545	123,956	1,707	156,511	2,772	213,461	2,343	201,856	1,229	112,915	9,596	808,699
Commercial	174	27,109	319	42,805	431	46,331	561	56,736	445	53,355	1,930	226,336
Parts	...	12,685	...	14,626	...	20,087	...	19,853	...	18,229	...	85,480
Other Asia												
Household	15	2,655	20	6,000	101	17,665	63	7,263	17	1,926	216	35,509
Commercial	5	1,219	17	2,972	11	1,990	5	1,315	7	2,093	45	9,589
Parts	...	620	...	254	...	849	...	5,953	...	1,262	...	8,938
Total to Foreign Nations and U. S. Possessions	**150,343**	**$16,425,835**	**194,688**	**$20,255,466**	**211,532**	**$22,084,030**	**170,333**	**$19,072,683**	**153,241**	**$18,786,572**	**880,137**	**$96,624,586**

'Penguin Pete' Edits Bush Trade Sheets

HARTFORD, Conn. — "Penguin Pete," that cool little bird that goes to bat for Bush Mfg. Co. products, seems to be enjoying his appointment as "editor" of the company's monthly trade bulletins. First editorial job Pete completed was to cross off the "bull" from the bulletin, because, the feathered cooling ambassador pointed out, he meant to "follow in the footsteps of old 'Honesty First' Diogenes, and make honesty his editorial policy."

The bulletins are done in clever cartoons, designed to get over the Bush message to the trade in brief and entertaining fashion. Each month a message on the company's products is sent out as a personal message from Editor Penguin Pete. Special messages on the Second All-Industry Refrigeration & Air Conditioning Exhibition at Chicago were sent out, as well as Pete's personal observations on the show and the Bush products displayed there.

Alco Pocket Guide on Refrigerant Control Lists Service Aids

ST. LOUIS—A 76-page, pocket size "Handbook of Automatic Refrigerant Control" chock full of tables, service data, application drawings, practical information and facts developed from an impartial viewpoint has just been issued by Alco Valve Co.

Definitions of "refrigeration and air conditioning terms that every refrigeration man ought to know" are included, as are tables and equivalents on specific heats, pressure, pressure drop, temperature, latent heats, etc., all provided in compact form for ready reference.

Of particular interest and value to the service or repair man is the service manual or "trouble analyzer" section of the handbook. Various types of valves are also thoroughly covered.

Distribution of the handbook is being handled by Alco jobbers.

Wolverine Tube Opens Chicago Warehouse

CHICAGO—To make its products more readily accessible to the refrigeration, air conditioning, and plumbing trades in metropolitan Chicago and the midwestern territory, Wolverine Tube Co. of Detroit has opened a warehouse at 1632 W. Lake St. here.

Stock carried will consist of copper water tubing, S.P.S. pipe, and fittings.

This new operation will in no way affect Steel Sales Corp., which has represented Wolverine in this territory for many years.

With the opening of the Chicago warehouse, the Wolverine company now has 10 principal distribution centers in various parts of the country.

Hinshaw Supply Opens San Francisco Branch

SAN FRANCISCO—Hinshaw Supply Co., refrigeration supply jobber in Sacramento, has opened a branch store at 1208 Howard St., San Francisco, and will operate as a complete refrigeration supply house for this area.

New branch will carry full lines of supplies and parts, including Sporlan valves, Pittsberg refrigerants, Gates belts, and Detroit Lubricator products.

The branch will be under the management of Fred Culp, who has been associated for some time with Robert H. Hinshaw in the firm's activities in Sacramento.

Locker Plant & Produce Brokerage Are Combined

SELMA, Ala.—A new refrigerated storage and produce brokerage firm has been incorporated here with a capital stock of $30,000 under the name of Farmers' Meat Processing Co.

Object of this organization is to operate a locker storage plant and to engage in buying and selling livestock, fruits, eggs, and other farm produce.

Officers of the company are: L. B. Suttles, president; J. O. Risher, vice president; and Richardson McKenzie, secretary-treasurer.

Jobber Changes Cities

GRAND RAPIDS, Mich.—B. F. Harris & Son, refrigeration supply jobber, has moved its entire business from Holland, Mich. to Grand Rapids. New headquarters, including store, office, and warehouse, will be located at 878 Grandville Ave. in Grand Rapids.

Oberc Adds Gaskets

DETROIT—J. M. Oberc, Inc. has been appointed jobber for Chicago-Wilcox Mfg. Co.'s line of gasket materials and stampings in this territory, reports E. J. Zoll, secretary of the company.

UNIVERSAL COOLER DETROIT — The Seal of Quality Since 1922

A New Improved Dehydrator on the Market Soon
Look for Our Announcement
MUELLER BRASS CO.
Port Huron, Mich.

HELPING MEN GET A FRESH START

The demand for refrigeration and air conditioning information grows stronger as the expanding cooling business becomes increasingly interesting to rehabilitated convicts.

DETROIT — Vocational teaching authorities in many state prisons have apparently selected the electric refrigeration and air conditioning industry as one of the most suitable for their inmates to enter after release from the institution, judging from the requests for educational literature which AIR CONDITIONING & REFRIGERATION NEWS has been receiving from penal institutions.

It is noteworthy that most of the requests declare that there is no monies appropriated for training on these subjects, so a plea is made to manufacturers and publishers for free information with which to educate the men who are serving time.

Nebraska Class Needs Dope On Air Conditioning

The viewpoint of the prison officials is set forth in the following letter from the school superintendent at a Nebraska institution:

We are at present conducting a course in air conditioning in connection with the inmate school of this penitentiary.

We are, however, very much in need of descriptive material for use with this course as no state funds have been made available for the purchase of text books for this purpose.

It is our understanding that your company has available certain material along this line and we are taking the liberty of writing to ask if you would care to send us any such data that you may be able to spare. Back numbers of any publications would be most welcome. We are particularly interested in receiving material containing engineering or construction details concerning air washer equipment.

Thanking you in advance for anything that you may care to do for us along this line.

Convict Engineer Serves As Teacher

In a second letter, this same superintendent elaborates on his problems and explains how the prison "secured" a "well-trained and experienced engineer" to teach the course in air conditioning. This letter follows:

"I wish to thank you for your generous gift of material to the air conditioning class of the prison school. I am glad to know that you have an interest in the work we are doing here.

"We have 125 students in school. They are taught by 10 inmate teachers. Since I took charge of the school here in December, 1938, I have stressed vocational training on the theory that more than 90% of our inmates are ex-convicts in the making and that eventually they will be placed back in society for better or for worse. The more adequate a man's training is, the greater his likelihood for success.

"When our budget was made up for the fiscal year ending June 30, 1940, it was impossible to offer a course in air conditioning because no teacher was available. However, since then a well trained and experienced engineer in that field has been convicted and sentenced here and a class has been organized.

"No material for such a course was on our budget, but a great deal of advertising and educational matter has been obtained from manufacturers, and together with the books that I have bought personally, have furnished the basis for a course in the subject. The results obtained have been gratifying. Additional material will be obtained from the budget for next fiscal year and we should be sending out a few well trained men.

"Again, in behalf of the students of the air conditioning class, let me thank you for your interest and generosity."

New York Students Want Trade Periodicals

Up-to-date trade news and information seems to be in demand at one of New York State's biggest penal institutions, according to this letter received from the warden and head teacher there:

Here in this New York prison school we endeavor to keep our vocational classes supplied with up-to-the-minute periodicals devoted to the particular subjects studied. Our refrigeration and air conditioning group is quite progressive but at the present time is in need of such periodicals as: AIR CONDITIONING & REFRIGERATION NEWS.

At one time you favored us with contributions of certain issues of the publication and we are at this time wondering if you might care to continue sending us unsold copies.

If you find it possible to comply with this request you can be assured that your cooperation will play a definite part in our educational program.

Ohio Prison Farm Has Same Problems

Similar problems confront the chaplain of an Ohio prison farm. He writes:

From time to time a copy of your publication reaches our library through Volunteers of America, and the men seem to want more of your magazines. While we do not want to impose, should you ever have off sales returns to spare, please try to send a bundle to us—transportation charges collect. We have nearly 1,800 incarcerated here and these men come from all parts of the United States and Canada. Again it would mean much to the men here if you found it possible to add the name of our library to your free subscription lists. It even might bring you new customers.

THE 1940 KOCH LINE

The Koch line of commercial refrigerator cabinets is complete . . . profitable . . . easy to sell. It includes refrigerators for groceries, meat markets, taverns, bakeries, florists, and institutions; as well as display cases and walk-in coolers. Koch sells no condensing units. Any standard commercial unit will refrigerate Koch cabinets. Big money here for qualified distributors.

FREE CATALOG

A new 102 page catalog in color. Get your copy. Ask for franchise information. Write

KOCH REFRIGERATORS
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THE HERMETIC STORY

FIELD SERVICE IS REDUCED TO ITS SIMPLEST TERMS WITH CHIEFTAIN HERMETIC—THERE ARE ONLY THREE REPLACEMENTS:
1. Motor compressor. 2. Fan motor. 3. Relay.

WRITE TODAY FOR FULL STORY

TECUMSEH PRODUCTS CO., TECUMSEH, MICH.
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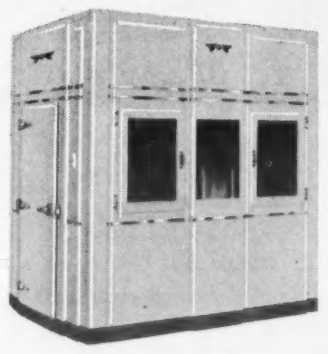
YOU CAN COMPLETELY EQUIP MODERN FOOD STORES

BIGGER PROFITS SELLING the Sherer LINE



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SHERER-GILLETT COMPANY • MARSHALL, MICH.
Manufacturers of Refrigerated Display and Storage Equipment.

REPLACE WITH RANCO

Save time -- and satisfy your customers -- by selecting Replacement Controls from the world's most complete line!

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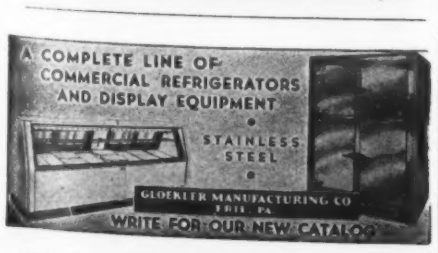
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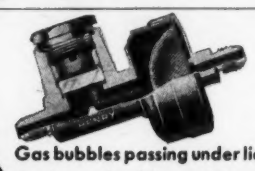
Frank Chase Gets New Post With Simon Co.

WASHINGTON, D. C.—Frank N. Chase, who for the past year has been in charge of part of the metropolitan Washington area for Simon Distributing Corp., Hotpoint and Motorola distributor in this area, has been placed in charge of all of this firm's dealer quotations and information.

Before joining the Simon organization, Mr. Chase had spent 32 years in the merchandising department of National Electric Supply Co., former G-E distributor in this territory.

Recent addition to the Simon personnel is Frank Brangwin, formerly with American Safety Razor Corp., who has been named sales representative on the Hotpoint and Motorola lines in metropolitan Washington.

TYPE 888
HENRY
COMBINATION STRAINER AND LIQUID INDICATOR



WRITE FOR CATALOG

Gas bubbles passing under liquid sight port reveal shortage of refrigerant in system. Soldered brass shell. Sight port cap and gasket provide added seal and protects glass from breakage. Hemispherical screen has 90% greater filtering area than usual flat disc. 120 mesh reinforced brass screen.

HENRY VALVE CO. 1001-19 N SPAULDING AVE CHICAGO, ILLINOIS
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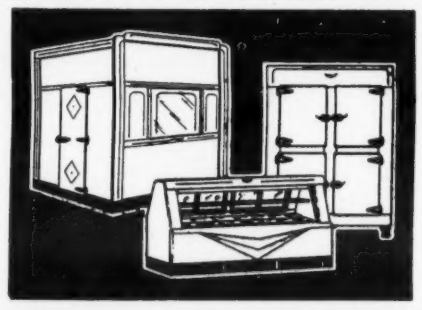
Now . . . Air Cooled Tapping Units in PERLICK
DIRECT DRAW DISPENSERS

The complete new 1940 line of Perlick Direct Draw Dispensers now features air cooled tapping units. Another point of superiority in favor of this line that is recognized the leader! Sold with or without compressor, but with evaporator and tapping equipment. An ideal, extra-profit line for refrigeration dealers!

Write today to— R. PERLICK BRASS CO. IN MILWAUKEE

A MODEL FOR EVERY NEED



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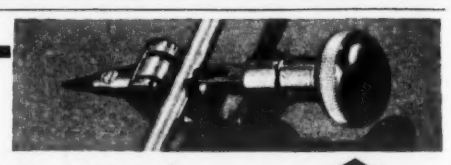
THE ACE
of Tube Cutters

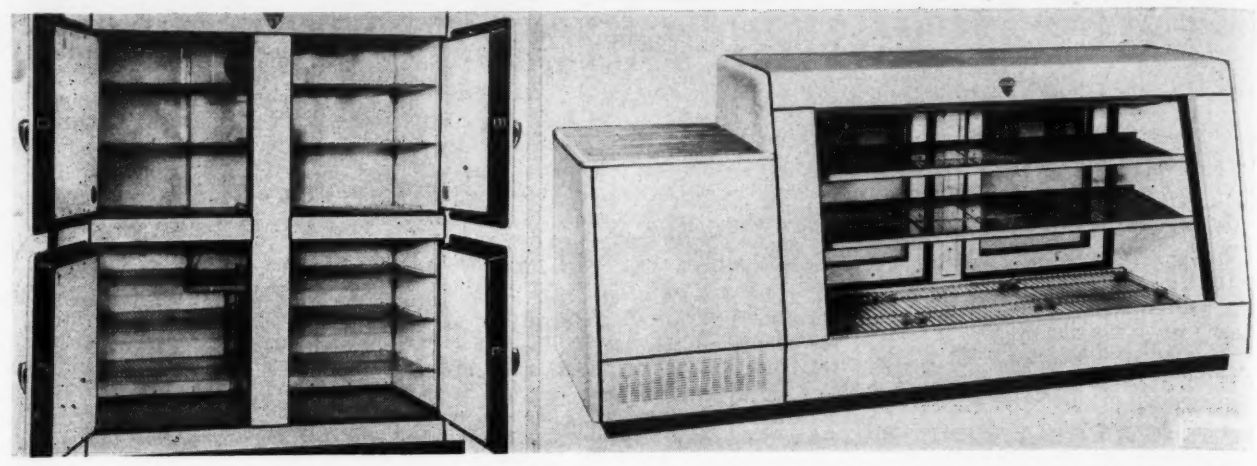


● Of all the Imperial tools that are so widely used it is safe to say that the No. 174-F Tube Cutter is the "king of the crop" or the "Ace in the hole." You can buy cutters for less money, but you can't buy anything the equal of it for handling tubing work.
The tube rests against two rollers, with vertical groove, making it possible to remove flare, when desired. Brass forged body, chromium plated finish. Knurled handle. Complete with reamer.
● No. 174-F for 3/16" to 3/4" O. D. Tubing $2.75 Each
THE IMPERIAL BRASS MFG. CO., 565 S. Racine Ave., Chicago, Ill.
ORDER FROM YOUR JOBBER
IMPERIAL
VALVES • FITTINGS • TOOLS
CHARGING LINES • FLOATS
STRAINERS • DEHYDRATORS

REFRIGERATION and AIR CONDITIONING
PARTS and EQUIPMENT
TO SERVE YOU MORE QUICKLY 12 CONVENIENTLY LOCATED WAREHOUSES
WRITE FOR CATALOG
THE HARRY ALTER CO.
1728 S. MICHIGAN AVENUE, CHICAGO, ILLINOIS
3 CHICAGO BRANCHES, NORTH, WEST, SOUTH
NEW YORK BROOKLYN BRONX JAMAICA
NEWARK DETROIT CLEVELAND ST. LOUIS

GENUINE GRUNOW PARTS
BUY FROM YOUR DISTRIBUTOR OR WRITE DIRECT
Grunow Authorized Service, Inc.
4313 Fullerton Ave., Chicago, Ill.

New Models In the Commercial Refrigerator Field



Two new models in the "Midwest" line are shown here. At the left is the new reach-in cooler, with blower-type coil and adjustable shelf arrangement. At the right is a dairy case with a compressor enclosure "siding." Coiling is in the top of the case.

* * *

Lilienthal Talk Suggests Quick-Freezing System May Be Marketed

NEW YORK CITY — The fast freezing machine which was invented and developed in the course of TVA technical research is soon to be placed on the market by a private concern, according to David E. Lilienthal, TVA director, who recently spoke before the Columbia University Graduate Economics Club here.

"As soon as patent licensing arrangements are worked out," Mr. Lilienthal said, "the equipment will be manufactured and put on the market by a private concern.

"Practical men, qualified to judge, believe it will open new opportunities for local, decentralized industry, for this process was developed so that freezing plants can be set up in areas of small farm producers, now excluded from the rapidly growing freezing business.

HELPING THE FARMER

"Even more significant is the effect of such a technical development upon the conservation of the soil and the income of farmers. Some of the crops frozen, like peas, are legumes and enrich the soil in which they grow. The matted roots of strawberry plants help prevent erosion.

"Frozen products bring rather high prices and tend to raise farm income. As they get more income from fewer acres, farmers keep the plough off the steeper lands that wash badly and sow them to sod crops."

Mr. Lilienthal said he cited this piece of applied research "as an illustration of one way in which the TVA, at a modest cost, has uncovered new economic opportunities to be carried forward by private business."

WHERE TVA CAME IN

Tracing the experience of TVA with quick freezing, the speaker stated that "a year and a half ago farmers around Cleveland, Tenn., brought truck after truck of strawberries from their farms to a building on the outskirts of the town. Here the berries were put into a machine of an entirely new kind, designed by TVA industrial engineers.

"Six minutes after each batch of berries was put into the freezing machine they were taken out, each berry frozen into a solid red marble. The frozen berries, 88,000 lbs. of them, were then put into a refrigerated truck, and hauled to a specially designed barge, also refrigerated to about zero temperature.

"This barge then set off down the Tennessee River, the Ohio, and up the Mississippi to St. Louis, where the products contracted for months before was turned over to the purchasers at premium prices.

"Weeks, or even months later, when the berries were used, it was reported that they retained the taste and shape of fresh strawberries. This quick-freezing process is a great advance over existing methods. The same invention has been adapted with excellent results to the quick freezing of other fruits, to all kinds of vegetables, and to meats."

Super-Cold To Summerlin

DALLAS, Tex.—E. C. Summerlin, formerly a salesman for the Super-Cold Southwest Co. here, has been appointed a "key" dealer to handle a portion of the Louisiana territory.

Midwest Adds Reach-In Box With Blower Coil, New Dairy Displayer

GALESBURG, Ill.—A new reach-in refrigerator and a new display case have been added to the line of commercial refrigeration equipment manufactured by Midwest Mfg. Co.

The new reach-in, known as Model 600, is a four-door cabinet designed for remote installation of unit. Net capacity is 61 cu. ft. Shelf area is 79 sq. ft. Midwest's patented blower coil is used.

Cabinet is of smooth, rounded design with key device door locks available. Shelves are adjustable and are heavily tinned. Interior is porcelain; exterior is available in either Bonderized Dulux or porcelain enamel.

The display case, especially designed for storage of dairy products, is obtainable in two models—FV6 without compressor enclosure, and FV6-S with compressor enclosure attached. It is a full-vision type case with a 6-foot-long, triple-thick glass front. It has a straight back with reach-in doors available in either solid or triple-glass construction.

The compressor enclosure is built at the factory as an integral part of the case.

Coiling is in the top of the case, and is described as "booster off-center type." There is a patented flash pan to aid circulation.

The case stands 44 inches high, so the top can be conveniently used as a service counter. The heavily tinned shelves are spaced to allow 11¼ inches in the bottom section, 8½ in the center, and 6½ in the top.

Midwest's new 1940 catalog will soon be available. New 1940 prices have already been issued and are in the hands of distributors.

The company is now represented in all states by field men. Latest factory representative to be appointed is George I. Boone, who covers metropolitan New York and northern New Jersey.

Leeds & Northrup Co. Official Is Dead

PHILADELPHIA — Charles A. White, secretary-treasurer of Leeds & Northrup Co., manufacturer of electrical measuring instruments and controls, died recently at Germantown hospital.

Mr. White joined the Leeds & Northrup firm in 1920 as chief accountant, and in 1928 was made secretary-treasurer of the company.

Bottomfield Gets Army Canal Zone Jobs

BALBOA, Canal Zone—C. J. Bottomfield here has been awarded a contract by the Army Department for installing refrigeration systems in 14 temporary buildings at Paraiso, Canal Zone, and in 11 temporary buildings at Ft. Davis, Canal Zone. Amount of the contract was $13,203.

From Texas To Cleveland

CLEVELAND—E. A. Firebaugh, formerly sales manager of Super-Cold's branch at Dallas, Tex., has been appointed to head the company's operations here.

Knight Vice President Of Bastian-Blessing

CHICAGO—Charles E. Knight, for the past seven years sales manager of Bastian-Blessing Co., has been elected vice president in charge of that company's soda fountain and ice cream cabinet sales.

Mr. Knight received a thorough training in the soda fountain business by serving in various capacities in the manufacturing, sales, and executive departments of the Knight Soda Fountain Co. He worked part time for this company from 1914 to 1920, and full time from 1920 until the company was dissolved.

From 1923 until 1929 he was general sales manager of the Knight organization, and from 1929 until 1933 was secretary and general manager.

In 1933 when his father, James S. Knight, and his associates decided to liquidate the manufacturing business of the firm, Charles E. Knight became sales manager of Bastian-Blessing Co.

In addition, he liquidated the inventory and accounts of the Knight Soda Fountain Co. without loss. He is still an officer and general manager of the Knight company which has continued active in other lines.

Henderson To McCray

DALLAS, Tex.—William Henderson has joined the staff of McCray Refrigerator Co. in this district and will be put in charge of operations at Waco, Tex. He is the son of E. O. Henderson, who is district manager for the McCray company at Oklahoma City.

Finned Tube Products
SINCE 1907 for COOLING, HEATING and AIR CONDITIONING
Bush Mfg. Co. Hartford, Conn.

Specify PENN
AUTOMATIC CONTROLS AND SWITCHES FOR RECOGNIZED RELIABILITY
Write for Catalog
PENN ELECTRIC SWITCH CO.
GOSHEN, INDIANA

Jomoco
COMPRESSORS
Single and twin cylinder units. Engineered and manufactured to highest standards. Write
GALE PRODUCTS
1635 Monmouth, Galesburg, Ill.

ACME INDUSTRIES, INC.
JACKSON MICHIGAN
HEAT INTERCHANGERS

Use CHICAGO SEALS
for seal replacements
A complete line in all sizes

CHICAGO SEAL CO.
20 North Wacker Dr., Chicago

What's New

Descriptions of some of the brand new items for the refrigeration and air conditioning, and major appliance fields.

New Suction Pressure Regulating Valves

For use on single installations to regulate the pressure at the tail of the evaporator, and to permit the maintaining of a evaporator pressure at a desired level, a new suction pressure regulating valves has been introduced by Automatic Products Co. of Milwaukee.

This valve permits the operation of two or more evaporators at different temperatures with a single condensing unit, often necessary in multiple installations. While thermostatic expansion valves may be used for this purpose in some cases, where temperature differences of more than 5 or 6° F. are need, the suction pressure regulating valve should be used, company engineers state. It may be used on flooded, semi-flooded, or dry expansion systems.

In operation, as the load increases in the evaporator, the valve tends to open wider so as to maintain the predetermined pressure setting of the regulating valve. Then, when the evaporator temperature begins to fall and evaporator pressure tends to decrease, the regulating valve begins to close again, thus maintaining the original pressure setting of the valve. The model 235 valve, as it is designated, is of the throttling type, tending to close off gradually as evaporator pressure is reduced beyond a certain point.

A gauge shut-off valve and gauge connection are furnished with the valve. The entire gauge assembly is screwed into the outlet of the valve.

Special feature of this valve is that a collar immediately below the adjusting knob is graduated in pounds pressure, ranging from 10 inches of vacuum to 30 lbs. By turning the knob down until the bottom of it coincides with the desired pressure setting, an immediate setting can be secured.

Attic Fans Feature One-Piece Orifice

A one-piece streamlined venturi orifice, claimed to provide more efficient operation, is a feature of the Chelsea 1940 attic fan, manufactured by Chelsea Fan & Blower Co., New York City. This type of fan, known as type E, is furnished in seven models ranging in air delivery from 5,000 to 25,000 c.f.m.

Propeller has been redesigned to operate at a lower speed, and is said to be much more quiet in operation. The propeller is made of four die stamped and die formed blades, to assure better balance, alignment, and performance.

Motor used is of ball-bearing type and specially designed for attic fans, and is equipped with a rubber mounted belt tension device to keep the belt taut at all times, prevent slippage and excessive wear.

Frame is constructed of high grade steel. One-piece square panel is reinforced with an angle iron frame having sufficient holes punched in the sides to simplify installation of plenum chamber, if required.

Counter Freezer For Small Retailers

BELOIT, Wis.—"Speed-Ease," a new all-in-one counter freezer combining complete facilities for freezing, hardening, and dispensing ice cream on a limited scale, has been introduced by Taylor Freezer Corp. here.

Designed especially to fit the needs and purse of the average ice cream outlet using something less than 1,000 gallons annually, this compact unit combines in one cabinet an automatic 6-quart freezer and three compartments—one for storing unfrozen mix, one for hardening 20 gallons of cream, and one for dispensing 20 gallons.

Each compartment is operated at a different temperature. Refrigeration is supplied by a self-contained ½-hp. air-cooled compressor.

The Speed-Ease is said to have all the features found in the more expensive Taylor freezers, including automatic control, whirl beater, and draw-flex valve. Cabinet is permanently sealed against moisture.

Complete unit is 55 inches wide, 31 inches deep, and 32½ inches high to top of cabinet or 50¾ inches high to top of freezer.

Kelvinator Branch Moved

BALTIMORE — Local branch of Kelvinator's Baltimore-Washington zone has moved from 1430 N. Charles St. to 25 E. 20th St.

CLASSIFIED ADVERTISING

RATES: Fifty words or less in 6-point light-face type only, one insertion, $2.00, additional words, four cents each. Three consecutive insertions $5.00, additional words ten cents each.

PAYMENT in advance is required for advertising in this column.

REPLIES to advertisements with Box No. should be addressed to Air Conditioning & Refrigeration News, 5229 Cass Ave., Detroit, Mich.

POSITIONS WANTED

MECHANICAL ENGINEER experienced in domestic and commercial refrigeration and air conditioning, 15 years with three leading corporations in executive positions in manufacturing, chief inspector, field trouble investigator, research and experimental desires position in any of the above. Manufacturing methods and quality thoroughly understood. Good references. Box No. 1209, Air Conditioning & Refrigeration News.

AIR CONDITIONING and refrigeration serviceman with 15 years of various factories experience. Positions held: Service Manager, Supervisor, Assistant Engineer and Commercial Service. Desires job with future. Best of references. Will go anywhere. Box No. 1215, Air Conditioning & Refrigeration News.

COMMERCIAL REFRIGERATION and display case salesman, aggressive—ability to create new business. Excellent closer, employed now, desire change because territory and opportunity is limited in present situation. Consider moderate draw against commission. Proposition should be permanent. Box No. 1217, Air Conditioning & Refrigeration News.

SALES MANAGER—Commercial refrigeration and air conditioning—twelve years experience, qualified engineer, capable organizer, outstanding ability, 33 years of age, university and factory trained. Thorough knowledge of Sales, Engineering, and Service. Desires connection with reputable manufacturer or distributor. Prefers location in West or Southwest, but will consider position elsewhere. Write Box No. 1218, Air Conditioning & Refrigeration News.

REPRESENTATIVES AVAILABLE

MANUFACTURERS WHO need representation in Pacific Northwest attention! Young man, technical graduate, with twelve years continuous experience in engineering and commercial refrigeration sales with two prominent manufacturers desires to become engineering and sales representative for good refrigeration products. For more information please write Box No. 1219, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

WANTED—Engineer to do layout, laboratory and test work on expansion and back-pressure valves, filters, etc. Company not now manufacturer of these items. Good living conditions. Future of your making. Replies treated confidentially, give experience. Box No. 1213, Air Conditioning & Refrigeration News.

SALESMEN WANTED

COMMERCIAL REFRIGERATOR and display case salesman of proven ability. Able to close sales personally, and capable of organizing and managing sales force. Several desirable openings in various sections of the country. Must be able to furnish bond. Salary or drawing account to qualified applicants. Write Box 1216, Air Conditioning & Refrigeration News, listing experience and qualifications.

Man Wanted

Capable representative calling on commercial refrigerator dealers to represent fast moving, basically new and non-competitive refrigeration coil unit. Territories open include New England, and eastern seaboard states—Texas and surrounding states—West Central states. Give full information first letter. All replies confidential—Box 1214, Air Conditioning & Refrigeration News.

AGENTS WANTED

MANUFACTURER of beer and water cooling equipment wants to secure the services of agents to contact jobbers and dealers. Please give full particulars. Box No. 1211, Air Conditioning & Refrigeration News.

FRANCHISES AVAILABLE

FREEZER MARKET E-X-P-A-N-D-S! New Model introduced by leading manufacturer creates five prospects for every one before. Unit is first low-priced complete ice-cream department (freezing, hardening, and dispensing). Is the right freezer at the right price for 85½% of all present ice-cream outlets, also opens vast institution market. Manufacturer wants to round out distributing organization to meet demand. National trade paper advertising breaks in March issues—direct mail campaign in March-April. Write for proposition now, stating territory covered. Box 1206, Air Conditioning & Refrigeration News.

BUSINESS OPPORTUNITIES

MY CLIENT, a retired refrigerator manufacturer, desires to re-enter the refrigeration industry. He is interested in financing the manufacture of any worth while commodity related to refrigeration or air conditioning, particularly the manufacture of items covered by patents or patents pending. Write: CHARLES PINCUS, Attorney, 9 E. 40th Street, New York City.

EQUIPMENT WANTED

WE BUY UP manufacturers, jobbers, dealers bankrupt surplus and discontinued merchandise and equipment. We are interested in motors, compressors, controls, valves and parts. Send us a list of equipment you have. R & R REFRIGERATION CO., 508 Morris Ave., Bronx, N. Y.

EQUIPMENT FOR SALE

COMPLETE AIR-CONDITIONING system consisting of 2—7½ H.P. Westinghouse condensing units, 3 Floor cabinets, 6 Ceiling units, complete. Traded in for larger systems. Will consider any reasonable offer. KEIL MOTOR COMPANY, Wilmington, Dela.

REPAIR SERVICE

G. E. DR1—DR2—$27.00; Domestic Westinghouse $27.00; one year unconditional guarantee. Place order for any model G. E. or Westinghouse sealed unit. Shipment will be made from stock same day. Return old unit later. Our production line turns out completely rebuilt sealed units mechanically comparable to manufacturer's with replacement service inferior to none at prices that enable you to realize profit on resale. Send for Complete replacement schedule. REX REFRIGERATION SERVICE, INC., 2226 S. State, Chicago, Ill.

DOMESTIC TYPE thermostatic controls reconditioned like new. Precision work by experts. Years of satisfied customers, among largest in the country. All work guaranteed. Try us and be convinced. The largest thermostatic repair service in the country. It's your guarantee. Prices on request. UNITED REPAIR CO., INC., 342 W. 70th St., New York City.

FREE HERMETIC CATALOG complete with prices on refrigerator units, rebuilding and exchange service. General Electric, Westinghouse, Majestic, Frigidaire and a complete stock of Grunow compressors and parts. Immediate shipment. For your copy specify catalog A. SERVICE PARTS COMPANY, 1101-3 North 24th Avenue, Melrose Park, Illinois.

PATENTS

HAVE YOUR patent work done by a specialist. I have had more than 25 years' experience in refrigeration engineering. Prompt searches and reports. Reasonable fees. H. R. VAN DEVENTER (ASRE), Patent Attorney, 342 Madison Avenue, New York City.

LARKIN

Refrigeration Products

Send for your copy of our new 1940 catalog containing complete information on the
Patented CROSS-FIN COILS Bare Tube Coils Humi-Temp Forced Convection Units
Instantaneous Water Coolers Steel and Copper Vacuum Plate Coils
Disseminator Pans Heat Exchangers

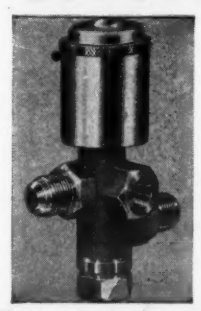
Write today to

LARKIN COILS, INC.
519 Fair Street, S. E., Atlanta, Ga.

No More Lost Replacement Sales With
Gilmer's "Eye-ful" Tower
BELT MERCHANDISER WITH HANDIMETER!
Your "On-the-counter" F.H.P. Belt Department
that pays you almost $1.00 an inch PROFIT
for the 15"-circle space it occupies!

Write today for details
L. H. GILMER COMPANY
TACONY PHILADELPHIA

AMINCO No. 881
Constant Pressure Valve



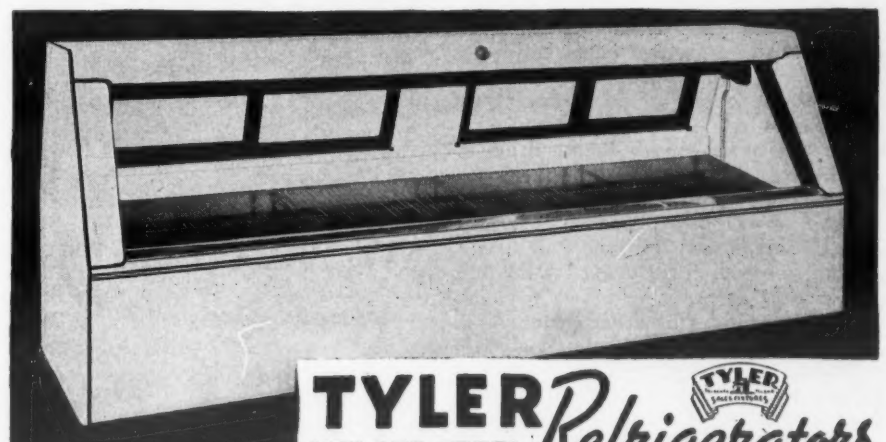
With Built-in Check
Two Temperature—Automatic
Ideal for Multiple Systems—Shuts off tight.

These valves are used to control the warmer coils in multiple systems. They are adjustable between 20 in. vacuum and 40 lb. pressure. In operation they will maintain coil pressures within a 2-lb. differential at any setting within the range. They are best used when temperature differences are not too wide and where a constant pressure is required in the coil controlled.

They are frequently installed on walk-in boxes which are operated by the same compressor as the counters in meat markets. In this application the temperature of the counter controls the compressor and the two temperature valve keeps the walk-in box at a constant temperature avoiding low pull-down due to the fact that this box is not opened as often and does not have the heat loss of the counter.

Made in Two-Way (881) & Three-Way (679)

AMERICAN INJECTOR COMPANY
1481-1491 Fourteenth Avenue DETROIT, MICHIGAN
Pacific Coast—Van D. Clothier, 1015 E. 16th, Los Angeles, Calif.
Export: Borg-Warner International Corp., 310 S. Michigan Ave., Chicago, Ill.



TYLER WELDED STEEL Refrigerators

TYLER full line dealers and distributors have a big advantage. Complete line fills every food store need. In addition, there are big selling models in demand for clubs, hotels, restaurants, bakeries and public institutions. Each model built to meet a specific demand and to sell at surprisingly low prices. Welded steel construction . . . 100% insulation. Low operating cost challenges all competition. You can make more money with Tyler. Write for dealer proposition today.

TYLER FIXTURE CORP., Dept. E, NILES, MICHIGAN
New York Office: 601 W. 26th St. Boston Office: 683 Beacon St.
Chicago Office: 1663 W. Ogden Ave.

WILSON BOTTLE STORAGE
- TRIPLE PURPOSE -

1. Aeration of Milk — with refrigerated brine from the central compartment
2. Storage of Milk — in the two adjacent dry storage compartments
3. Making of Ice — for use on the delivery route, if desired

Three-in-one: This Bottle-Storage Cooler, with aerator and pump, makes a complete cooling and storing unit for the small retailer. For the large retailer WILSON SYSTEMS provide the Wilson Sectional Walk-In Storage Coolers in 18 stock sizes, with brine tank, aerator and pump.

GET YOUR FULL SHARE OF ALL MILK-COOLING BUSINESS

WRITE FOR DETAILS

WILSON CABINET CORP. SMYRNA DELAWARE

E.E.I. Completes Plans For Sales Conclave In Chicago

(Concluded from Page 1, Column 1)

"Advertising to Sell Use," R. G. Kenyon, advertising manager, Southern California Edison Co., Los Angeles; "Selling the Farm Market," T. V. Houser, vice president of Sears, Roebuck & Co., Chicago.

Highlight of the morning session on March 21 will be a discussion of "Load Potentialities Through Packaged Air Conditioning," with Harry Boyd Brown, sales manager of the air conditioning department of Philco Radio & Television Corp., Philadelphia, as speaker.

At this same session, "Some Power Problems for Solution" will be discussed by C. H. Purdy, Consumers Power Co., Jackson, Mich.; "Know Your Industrial Customer," by R. E. Fisher, vice president of Pacific Gas & Electric Co., San Francisco; and "Selling Load to Safeguard Net," by Edwin Vennard of Middle West Service Co., Chicago.

At the afternoon session March 21, "Some Problems to Solve in Marketing Refrigerators" will be outlined by Austin Monty, merchandise manager of Philadelphia Electric Co.; "Effective Coordination in Utility Manufacturer Selling" will be described by C. E. Swartzbaugh, president of National Electrical Manufacturers Association; "Meeting Obstacles in Promoting Electric Cooking and Water Heating" will be detailed by Sam Stites, division manager of Ohio Power Co., Youngstown; and "The Department Store as an Outlet for Range Sales" will be described by a speaker as yet unannounced.

Conference on wiring and lighting developments is scheduled for the afternoon of March 20, while the session March 22 will be devoted to a consideration of fluorescent lighting, with George E. Whitwell of Philadelphia Electric Co. as chairman.

'Home-Made' Co-ops Are 'Good Hunting' Grounds

WASHINGTON, D. C.—A new rural market for electrical appliances, numbering hundreds of thousands of farmers who have had no prospect of receiving electric service before, has been developed recently by REA through the organization of self-help, or "home-made" cooperatives.

First of these projects has been completed in Jackson County, Ind. Two others are under construction at Malheur, Ore., and Salem, Ark.

The "home-made" cooperative makes electricity available to scattered farms or low income areas, where service previously could not be given at a profit, or where farmers could not afford either wiring or electrical appliances.

Cash for wiring and appliances is made available by having the farmers construct the cooperative themselves, for which they receive wages. Fear of crop failures or ruinous farm prices has prevented these farmers from signing contracts for electric service. The contractor on these projects is required to hire from the membership all labor except supervisors. With their wages, the farmers modernize their homes. Without them they could not afford to wire their homes, much less buy appliances.

Before these projects are started, a survey is made to determine the exact amount of appliances that will be purchased by the membership. Conditional sales contracts are made for these purchases, so that REA can determine what the project's income will be before the allotment is made.

On the Arkansas project, a two weeks' canvass of 261 proposed members brought in conditional orders for 57 refrigerators, 50 washing machines, 112 irons, and 111 radios. Dealers who work along with these projects from their inception are thus enabled, says REA, to send in carload orders for major appliances. The refrigerators, for instance, are usually of one model for the entire membership.

The surveys, previous to allotment, determine the number of members in each family, and the size of appliance most suitable. Numerous applications for this type of cooperative are under consideration by REA.

G-E Signs With FTC On Radio Pricing In Advertising

WASHINGTON, D. C.—General Electric Co. has entered into a stipulation with the Federal Trade Commission to discontinue certain misrepresentations in the sale of radios, the FTC announced last week.

The stipulation relates that one of the respondent corporation's dealers, Vim Electric Co., Inc., of Brooklyn, published advertisements of G-E radios showing that a certain 8-tube set would be sold for $39.95 or at a saving of $30 from the regular or "manufacturer's list" prices of $69.95; that certain radios were "made to sell for 50% more," and that the buyer of a certain set with automatic tuning would save $25 by paying $44.95 when the regular price was $69.95.

In its stipulation, the General Electric Co. admits that its practice is to suggest, approve, and share the cost of some but not all of the advertising published by its dealers to promote the sale of its radios; that it suggested the list price set out in the Vim Electric Co.'s advertisement of a $69.95 radio for $39.95, and that it paid a share of the cost of publication of the other two advertising items; and that the radios referred to as having a list price of $69.95 were never regularly sold for that price, but at the customary retail prices of $39.95 and $44.95 respectively.

ON CATALOG PRICES

G-E also agrees to cease and desist from representing that prices for radios made by or for it and specified in catalogs or advertising literature, are the prices at which such radios are currently sold or intended by it to be sold, unless such stated prices are the true and correct prices employed in the regular course of current business, or that stated prices are the regular prices at which such radios were formerly sold, unless such is a fact.

General Electric further agrees that it will not supply to its distributors, wholesalers, retail dealers, or others, any information, data, advertising copy, or suggestions calculated to induce such dealers to incorrectly state the former price or list or regular price of any of the radios sold by it, and that it will not approve or pay any portion of the cost of advertising prepared or published by or for its distributors or dealers, which, to its knowledge, incorrectly states or misrepresents the former, list, or regular price of such radios.

Wisconsin Association Wants Stronger Terms

MILWAUKEE—A down payment of not less than 10% of the purchase price, terms not to exceed two years, and goods to be marked with the cash price plus the carrying charge—these were the appliance sales terms incorporated in a resolution adopted by the Wisconsin Retail Furniture Dealers Association at its annual convention here recently.

The resolution urged that the association "try to discourage in every legitimate way" the no-down-payment and long-term policy followed by various department and furniture stores handling major appliances, and that the association further attempt to promote the standards contained in its resolution.

Glenn O'Harra Makes Real 'Flying' Trip

DETROIT—M. Glenn O'Harra, Norge vice president in charge of sales, recently journeyed by plane on a 10-day tour of distributors and dealers in Florida and southern Georgia.

At Miami, his first destination, Mr. O'Harra was to meet Fred Bultman, general manager of Cain & Bultman Co., Norge distributor in Jacksonville, Fla., Mr. Bultman was to accompany Mr. O'Harra on his southern itinerary, which included stops at Tampa, Daytona, Orlando, and Jacksonville, Fla., and Savannah and Atlanta, Ga.

A New Salesman—Donald Duck—Goes To Work For Dealers

Modern Kitchen Bureau's 1940 promotional program on electric water heaters is outlined for Bruce Fleming (left), manager of the major appliance divisions of National Electrical Manufacturers Association, by H. L. Martin, manager of the Bureau. The water heater program, and others on MKB's promotional schedule for 1940, will be the subject of a special session during the sales conference of Edison Electric Institute in Chicago's Edgewater Beach hotel next week. Some 600 utility sales and promotion executives are expected to attend the meeting, which will be presided over by Walter H. Sammis, Modern Kitchen Bureau chairman. Reports on how Bureau materials are being used successfully in local drives will be made by the organization's 17 field representatives.

DEPENDABLE REFRIGERATION A-P Controlled

. . . Dinner at Six . . .

Tonight in millions of Homes, the "Average American Family" is sitting down to a delicious, juicy Fresh Veal Roast — made possible through . . .
DEPENDABLE REFRIGERATION.

Here's a marvel of modern science and industry that seldom gets its deserved praise. For, while this meat may be hundreds of miles from home, it's just as fresh, tender, and tasty as any of great-grandfather's "Fresh-Kill" . . . thanks to Refrigeration!

The DEPENDABILITY of A-P Valves is helping Meat Packers and Meat Market Owners to sure protection of meat quality . . . Through more efficient Refrigeration, operating at low power and service costs. An A-P equipped Walk-In Box or Display Cabinet is more profitable to both the Owner and the Service Man responsible for its operation.

A-P Thermostatic Expansion Valves are available in a full range of capacities.

Accurate . . . Supersensitive . . . Leakproof . . . Easy to Install . . . Easy to Adjust . . . DEPENDABLE.

No. 205-C Thermostatic Expansion Valve
Up to 1-ton Freon

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